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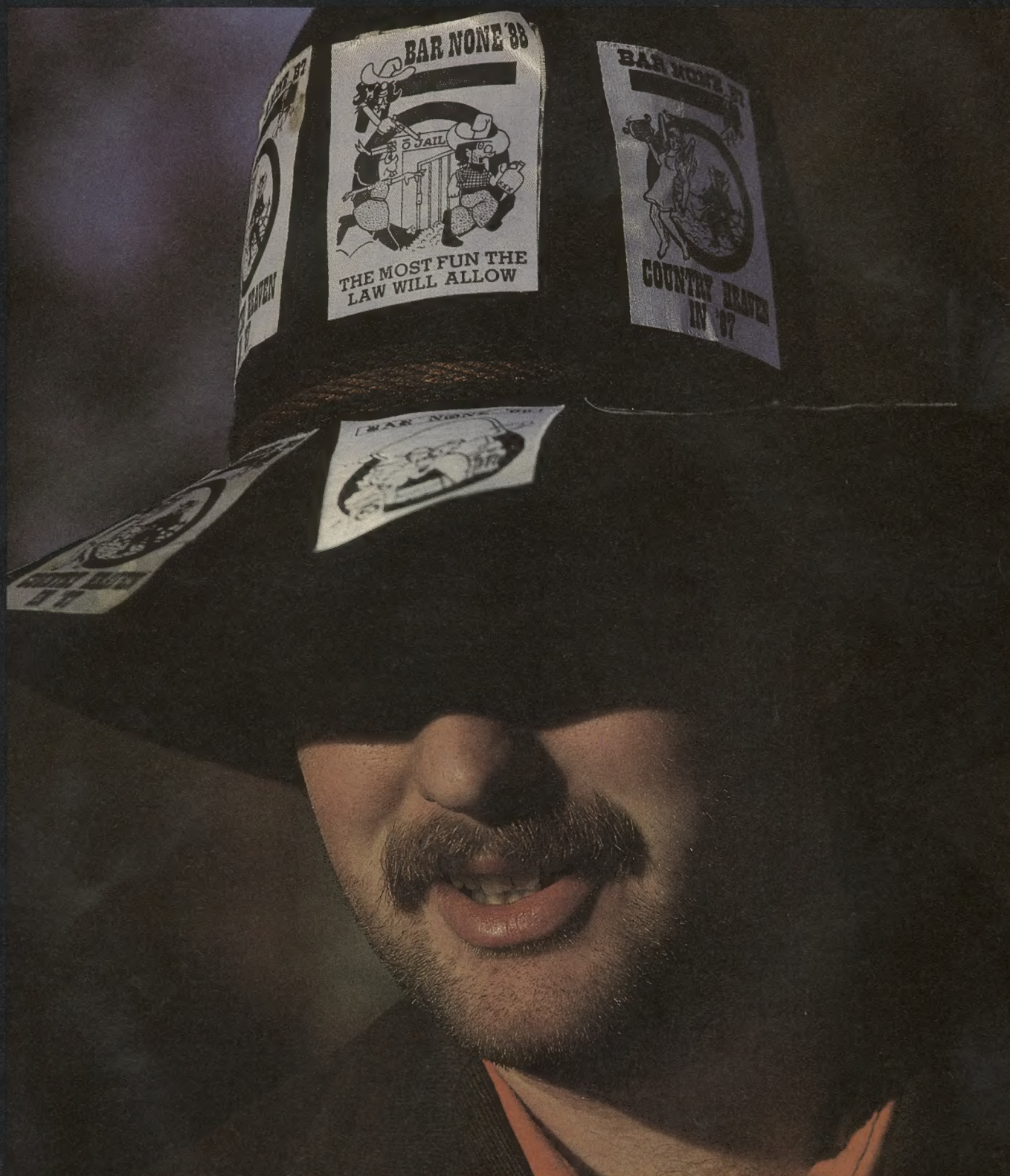
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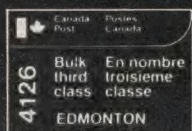
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University of Alberta
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Celebrates 75

A Look at
How Bar None
Began

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Research

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NEW TRAIL

One of the best examples anywhere of university, government and industry cooperation," is how Dr. Lech Ozimek describes the Alberta Dairymen's Research Unit in the University's Department of Food Science.

Dr Ozimek, who was appointed to the Chair for Dairy Processing Technology Research when it was created in 1986, heads the Dairymen's Unit which conducts basic and applied work related to dairy products and technology. He and his colleagues are doing a great deal of interesting work, including some on a project which they hope will lead to a dairy-based infant formula suitable for babies who have allergic reactions to milk.

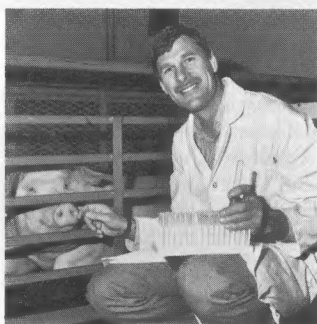
Dr Ozimek was only one of the many researchers whom I enjoyed meeting with as I put together this special issue of New Trail to mark the 75th anniversary of the Faculty of Agriculture and Forestry. As it turns out I didn't include an article on Dr Ozimek's work in the issue—not because it wasn't worthy of inclusion, but simply because I couldn't include everything I wanted to in this one issue.

For me, that is the most difficult part of putting together a special Faculty-based issue: I have to leave out so much more than I can put in.

In this issue, for instance, I would have liked to have done something on the Faculty's significant involvement in international development, a piece on the Faculty's numerous off-campus facilities, something about the Entomology museum, an item on the fruit and vegetable varieties developed at the University (these include Altagold corn and Harcourt apples), a write-up about a faculty member's creation of a particle board made out of flax straw, something on the popular spring tours of the University Farm . . . and the list goes on.

I guess those stories will have to wait for future issues. Watch for them—you'll be seeing plenty more about the Faculty of Agriculture and Forestry on these pages.

Rick Pilger
Editor



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The Faculty of Agriculture and Forestry is building on its proud past to better serve society in the future.

At Work for Agriculture, Forestry and Society 17

A sampler of the interesting and important work being done by researchers from the Faculty.

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A graduate who was there shares his memories of the beginning of this U of A tradition.

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Cover
Rod Turner, '89 BSc(Ag) shows off his Aggie spirit and his enthusiasm for Bar None, the Aggies' big bash, which is one of the most popular campus events.

Photo by Phil Schofield



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New Trail is published four times per year by the University of Alberta Alumni Association.
ISSN: 0824-8125 Copyright 1990

New Chancellor Selected

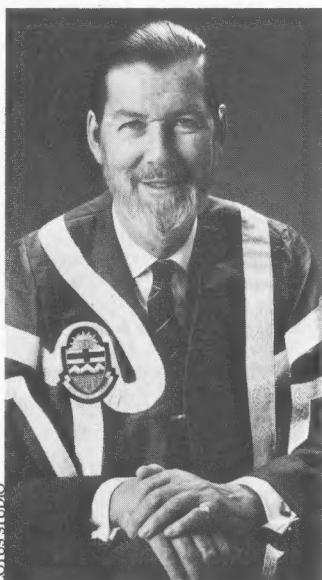
Stating his desire to "help to make the community understand the value of the University," Edmonton businessman Sandy Mactaggart accepted election as the University's chancellor for a four-year term dating from 1 July 1990.

At a news conference following the election Mr Mactaggart was introduced by Associate Chief Justice Tevie Miller, whom he succeeds as chancellor. In passing on the mantle of office, Chancellor Miller remarked "I can't think of anyone who it would please me more to have as my successor."

The new chancellor was born in Glasgow, Scotland and was evacuated to Canada at the age of 11 during the Second World War. After schooling at Lakefield College School in Ontario and at the Choate School in New England, he went on to Harvard College, from which he graduated *cum laude* with a BA in architecture in 1950.

Two years later he received an MBA degree from Harvard Business School, following which he and fellow graduate

Chancellor Mactaggart



John de la Bruyère set out for Edmonton. In 1954 they incorporated Maclab Enterprises Ltd.

Maclab is engaged in property development, energy investment and venture capital activities in Western Canada, the United States and elsewhere.

Mr Mactaggart has an impressive record of corporate and community service. He is or has been a director of several companies and organizations, including the CD Howe Institute, the Chief Executives Organization, and the Lakefield College School and Choate Fund in Ontario.

He is a trustee of the American University of Beirut and the chair of its finance committee. At Harvard he has served on the University Resources Committee, on the Committee to Visit the College, and as vice-president of the alumni association.

The new chancellor is no stranger to the U of A either. He has been a member of the University's Board of Governors for six years and has been generous in giving to the institution. The University's Mactaggart Fellowships, which originate from a gift of land that he made to the University, provide funding for important postdoctoral research positions on campus.

Alumni Support Celebrated

"The University of Alberta introduced me to experiences, people, knowledge, and many challenges which continue to enrich my life."

Those are words that could be spoken by many University of Alberta graduates, but the speaker in this case was Tom Walsh, 49 BA, '53 LLB, who served as the chair of the University's Project Leadership Dialogue fundraising campaign for 1989-90.



Alumnus Walsh thanks the PLD student callers.

Mr Walsh, who heads the law firm Walsh Young in Calgary and has an outstanding record of community service, was commenting on his involvement in the campaign at a small ceremony held earlier this year to celebrate the reaching of the \$1 million mark in pledges (for a four-year period) during the campaign, which featured personal mailings followed up by phone calls from student callers.

The campaign chair went on to express his satisfaction with the campaign: "I have enjoyed hearing from the many alumni who, like myself, wish to preserve the position of this institution."

"The University has created a tradition of giving among alumni through Project Leadership Dialogue. As chairman, I am very pleased with this initiative. The personal communication between current students and our graduates creates an important bond and network between alumni and their alma mater."

Mr Walsh concluded his remarks by thanking all alumni "most sincerely" for their enthusiasm and continued support of the University of Alberta.

Planning is now underway for the 1990-91 campaign which is expected to be somewhat modified.

The University's acting director of development Pat Warmington says that changes are anticipated which

will enable yearly contact with all alumni. In addition, the involvement of alumni and student volunteers is likely to be incorporated.

There will also be an increased emphasis on annual gifts, instead of pledges, to provide immediate assistance to meet some of the pressing needs that the University has at this time, she says.

Global Quota Instituted

An enrolment ceiling has been set at the University.

In April the Board of Governors of the University agreed to cap enrolment for the 1990-91 academic year, and President Paul Davenport has instructed the Registrar to control admissions to limit the University's numbers so that the overall enrolment next year is no greater than it was in 1989-90.

The recommendation came to the Governors from GFC which had earlier given its unanimous approval to a motion proposing that "as a result of resource constraints, resulting from prolonged government underfunding, and the responsibility to maintain the quality of education offered at the University of Alberta, the University will control new admissions in September 1990 with the objective of ensuring that total enrolment in 1990-91 is not greater than in 1989-90."

The decision was not taken lightly by either GFC or the Governors. The University's vice-president (research) Bob

James spoke for many of the Council members when he referred to the setting of a global quota as "a step backward for our province and our country" and "a sad situation" — but it was felt that no choice remained.

Before they voted GFC members were told that during the 1989-90 academic year there were 933 fewer course sections available to students and that in the Faculty of Science 2,000 students couldn't get all the courses they wanted in September. By January that number had exceeded 5,000.

Poole Chair Endowed

The sons of the late Ernest E and Gertrude Poole have endowed a chair in their parents honor at the U of A.

The Poole Chair in Management for Engineers will be held by a professional engineer who has achieved distinction in relevant fields



A Royal Welcome: Among the distinguished visitors to campus in recent months was Princess Chulabhorn Mahidol of Thailand. The princess, who has a PhD in biochemistry and is the director of the Chulabhorn Research Institute in Bangkok, was invited to campus as a distinguished speaker for the Faculty of Agriculture and Forestry's 75th Anniversary celebrations. In her address she described preventative and restorative measures being introduced in a flood-prone area of Thailand.

of business. The individual will be called on to provide leadership in the development and teaching of courses that will deal in an integrated way with various aspects of business and management. These include entrepreneurship, project management, technology policy, finance, marketing, quality control, human resources planning and decision analysis.

As well, the holder of the Poole Chair will assist in

developing cooperative programs with the Faculty of Business.

The founder of Poole Construction Company Ltd., Ernest Poole was born in Prince Edward Island and came west at an early age and later took up a homestead in Saskatchewan, where Poole Construction was first incorporated in 1913, the same year that he married Gertrude Annear, also a P.E.I. native. They moved to Edmonton in 1932, and the

Edmonton capital was subsequently the headquarters for their expanding business.

Poole Construction was to become one of Canada's foremost general contractors and the largest Canadian contractor in the North. From 1948 to 1977 it was headed by the couples two sons, John and George, both graduates of the U of A Faculty of Engineering, and is now the employee-owned PCL Construction Group Inc.

Around and About

■ This year's recipients of the Rutherford Awards for Excellence in Undergraduate Teaching are botany professor David Kass, home economics professor Nancy Kerr, professor of physical therapy Joan Loomis, and Lorne Tyrell, a professor of medical microbiology and infectious diseases. This is the eighth year that the Rutherford Awards have been distributed.

■ J Peter Meekison has been appointed to another term as the University's vice-president (academic). A political scientist, he joined the U of A faculty in 1967. During a ten-year leave from the University he served as deputy minister in Alberta's Department of Federal and Intergovernmental Affairs and was the author of the amending formula tabled by Alberta and ultimately adopted in the Constitution Act 1982.

■ A new centre opened at the University is helping researchers from both on campus and off design experiments involving statistics. The Statistical Services Centre can be reached at 492-5129.

■ The environmental health program at the University is the beneficiary of a \$250,000 grant from Canadian National Railways. CN is donating \$50,000 in each of the next five years to fund the purchase of new equipment to be used in environmental health and engineering programs being conducted by the Faculties of Engineering and Medicine.

■ English professor Garry Kelly has been selected as a New Killam Research Fellow for 1990.

He will be looking at "Women's Work: Women, Writing, and Power in Britain, 1750-1850." Among Canada's most prestigious research awards, the Killam Awards are intended to support scholars of exceptional ability engaged in research projects of outstanding merit.

■ The new chief librarian at the University, Ernest Ingles, suggests that changing circumstances call for a paradigm shift—that instead of aiming to be self sufficient libraries must look to resource sharing. Ingles, formerly head of the University of Regina Library, received his Master of Librarianship degree with first class honors from UBC.

■ Four U of A faculty members were elected to fellowship in the Royal Society of Canada this year. Elected into the Royal Society's Academy of Science were plant scientist Chuji Hiruki, for his contributions in the area of plant virology and mycoplasmaology, and chemist Gary Horlick, for his work on the leading edge of analytical spectroscopy. English professor Juliet McMaster, a specialist in Victorian studies, and historian Doug O'ram, who has made significant contributions to the understanding of Canadian history, were welcomed into the Academy of Social Sciences and Humanities in recognition of the quality of their scholarship in their respective disciplines.

■ Bruce Bain, a professor in the Department of Educational Psychology, has been elected director-at-large by the International Council of Psychologists.

■ Tee Guidotti, professor of occupational therapy, is the recipient of the Herbert Siemens Award of the Alberta Occupational Health Society.

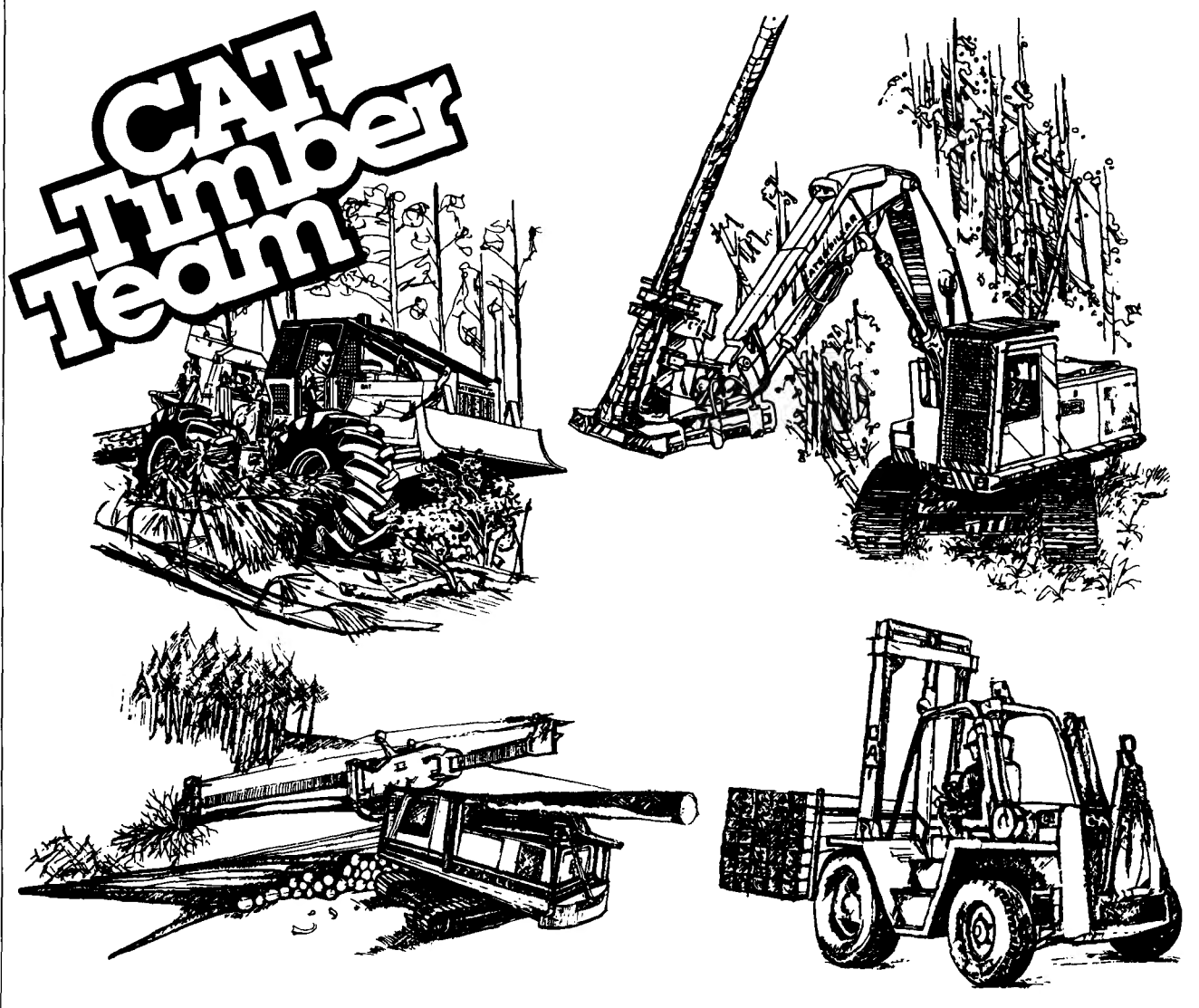
■ Katherine Arnold and Sandra Weber, third-year law students at the University, represented Canada at the American Bar Association International Client Counselling Competition and impressed a panel of five judges sufficiently to capture the top prize.

■ Jan Conradi has been appointed to the new Chair in Fiber Optic Communications Research, jointly supported by the University, NSERC, Bell Northern Research and the Alberta Telecommunications Research Centre. Dr Conradi, who at one point in his career with Bell Northern Research worked in Edmonton, was most recently manager of that company's Triangle Park facility in North Carolina.

■ Among the many athletes honored at the University's annual color night this year were Sean Chursinoff, a point guard on the Golden Bears basketball team, and Panda swimmer, Keltie Duggan. Chursinoff received the Wilson Challenge Trophy which annually recognizes the University's top male athlete; Duggan, who was named the CIAU's outstanding female swimmer this year, was presented the Bakewell Trophy, which goes to the top female athlete.

■ For the third consecutive year the U of A Pandas proved themselves the CIAU's best female gymnasts, once again winning the University Gymnastics Cup.

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By the mid-1920s with the prairie and parkland areas of Alberta largely settled, agriculture began to extend into the wooded areas of the province. Settlers, many with no previous agricultural experience, cleared thousands of hectares of bush, tediously falling trees, pulling stumps and picking rocks to get at the soil.

However, that soil was unlike anything that even the experienced settlers had dealt with before. After as few as three or four crops it would become barren and crusted, offering little or no return for the hard labor and precious seed invested in it. As their crops diminished, so did the dreams of those who had hoped to make a new life on the land.

Help was to come from the province's fledgling university—more particularly from the College of Agriculture and its soil science department. At that time the department comprised two professors, Frank Wyatt and John Newton, and in 1926 they had collaborated on a soil survey to appraise the land in the forested areas of the Province. It was undoubtedly at this time that they became fully aware of the problems farmers were having with the grey-wooded soils (which soil scientists now refer to as "luvisolic" soils).

In 1929 under Wyatt's direction some early soil treatment experiments were made on a farm near Breton, Alberta, and the following year the long-term Breton Plots were more formally established to find a system of soil management for the luvisolic soils.

In recent years growing public awareness and concern about the environment has led to much discussion about sustainable agriculture. This reawakened interest is making itself felt at the University of Alberta Faculty of Agriculture and Forestry—as it is at schools of agriculture throughout North America and the world. But sustainable agriculture is a concept the Faculty has never deserted. For 60 years now the Breton plots, which have chronicled the long-term benefits of a grain-forage rotation and moderate fertilizer application, have shown farmers who work Alberta's luvisolic soils how to sustain agriculture on their land.

Over the years hundreds of farmers have learned how to manage their land at the annual Breton field days initiated shortly after the Plots were established. For many it has literally meant economic survival on the farm.

Countless other Alberta agriculturists have benefitted from similar events organized by departments within the Faculty of Agriculture and Forestry. Among these are

Towards Broad Horizons



ALBERTA FOREST SERVICE

the annual Feeders' Day, held at the University Farm and now in its 69th year, and the Kinsella Ranch Days, which attract farmers and ranchers to the University Ranch located on leased pasture land near Kinsella, Alberta.

Events such as these are a vital part of the Faculty's continuing commitment to the dissemination of research findings and technical information. This commitment is one of the three major thrusts within the Faculty; the others being teaching, both of undergraduate and graduate students, and research, basic and applied.

According to its dean, the Faculty is very much aware of the special responsibilities it has as the only University faculty serving the advanced educational needs for agriculture in Alberta and the only university school of forestry in the Prairie Provinces.

Dean Ed Tyrchniewicz says that his Faculty, which is unique in Canada in combining both agriculture and forestry in the same faculty, has a strong tradition of community service. "Perhaps more than any other faculty at the U of A, we have a



The U of A's Faculty of Agriculture and Forestry is unique in Canada in combining these two interests. **Top:** New growth in the forest. **Above:** Cattle at the Faculty's Kinsella Ranch.

By Rick Pilger



LOTUS STUDIO

The Faculty that has served agriculture in Alberta for 75 years is broadening its outlook to help Agriculture and Forestry meet the challenges of the decades ahead.

steady commitment to and involvement in extension, public service, and outreach to agriculture, forestry, and society in general."

It was 75 years ago that the College of Agriculture at the University of Alberta first opened its doors. At that time there were 16 students and two professors—the professorial staff consisting of the first dean, Ernest Albert Howes, and his assistant, George Harcourt.

Even with such a modest beginning, the opening of the agricultural school had to have been an event of great satisfaction to the University's founding president, Dr Henry Marshall Tory, for it represented a significant victory in his struggle to maintain the unity of the University.

The question of the establishment of a school for advanced studies in agriculture had arisen soon after the University's founding in 1908. As most of the agricultural graduates in Alberta at that time were from the Ontario Agriculture College at Guelph, there was a strong tradition pointing to a faculty of agriculture removed from the University. Then, too, there was a faction in Calgary (led by the future Canadian prime minister RB Bennett) who had never been reconciled to the location of the provincial university in the north and want-

ed a school of agriculture to serve as the foundation for a Calgary university.

The issue came to a head when President Tory was invited to give his views about the best location for a provincial faculty of agriculture to the United Farmers of Alberta at their 1910 annual meeting held in Calgary. After surviving a great deal of early hostility, the University president made such a strong case for the integration of a faculty of agriculture into the provincial university that he carried the day handily.

In his 1954 book *Henry Marshall Tory* EA Corbett gives the following account of the case Tory made to the United Farmers:

Dr. Tory spoke for an hour. He pointed out what educationists had long since realized, that the universities must forsake their ivory towers and concern themselves with the practical problems of everyday life. He went on to say that where agricultural colleges had grown up apart from the university the tax-payers were compelled to support two institutions instead of one. This was not only very costly but created bitter rivalry in the legislature for public support and a resulting suspicion of the soundness of the work being done. By having a single institution, he pointed out, there is an opportunity to break down existing prejudices between rural and urban people through the mingling of students from the farm and the city in common classrooms, and students who were training to become schoolteachers would have an opportunity to take work in agriculture before proceeding to



U OF A ARCHIVES

Above: Dean Ed Tyrchniewicz.
Right: Plant Science plots on campus in the early 1930s; the University's Ring Houses are evident in the background.

teach in a farm community. He quoted opinions from leading agriculturalists in Great Britain and America, all of whom agreed that the plan of consolidation being worked out in Alberta was by far the most practical and economical. In conclusion, Dr. Tory outlined plans by which the University intended to relate its research to practical production problems as well as the social and economic problems of farm people. The University existed, he said, to lighten the burden of their toil and to assist them in obtaining the maximum reward for their labour. The President's obvious sincerity and his convincing arguments carried the day, and at the conclusion of the conference the vote was 243 to 7 for consolidation.

With Tory's advice the Province established three diploma schools of agriculture—at Vermilion, Olds and Claresholm—which would, among other things, prepare students for university study in agriculture. The University faculty was opened in 1915, once graduates began to emerge in sufficient numbers from the two-year courses at the diploma schools. (This was the normal route into the Faculty in its earlier years.)



U OF A ARCHIVES

From the Faculty's very beginning the Aggies were a colorful addition to life on campus. By the opening of the 1916-17 term land south and west of the University Hospital had been cleared and a combined beef and dairy barn laid out close to the main University buildings. On the campus south of Saskatchewan Drive, field husbandry plots were established.

Writing some years later, Robert Sinclair, who was a member of the University's first graduating class in agriculture and the first graduate of the Faculty to serve as its dean, recalled that in the fall of 1917 the presence of agriculture was made very evident on campus through an experiment which consisted of pasturing a considerable flock of sheep on the campus in front of the three residence buildings. "It may be recorded," he wrote, "that the venture did nothing to enhance the popularity of the Faculty in its initial stages."

In 1930 the University purchased the "West 240," and that summer five farm buildings were put on wheels and "rolled"

from their previous campus locations to the new University farm outside the city limits. (Today, of course, that farm is an island of green well inside the sprawling City of Edmonton.)

The move to the Farm ended the annual herding of 400 to 500 pigs of all ages along 114 Street across the old "Toonerville Trolley" tracks on 76 Avenue and then through the Belgravia bush to the summer quarters—a yearly event about which many stories were related.

While crops no longer grow or cattle graze on campus, the Aggies still manage to make their presence known, particularly during the Agriculture Club's week of celebration in November, at which time horses and wagons make a return to campus, square dancers appear in University buildings, and students from all faculties line up for tickets to Bar None, the annual dance and general letting-loose which is now more than 40 years old and is arguably the most popular social event on campus.

The forestry students—the Faculty added a forestry program in 1971—have their own week of celebration during the course of the year. Among the activities sponsored by the Forestry Society at that time are logger sports and various social events.

The Faculty made good on Tory's promise to relate its research to the practical problems of farm people, and in its first years it turned its attention to the immediate needs of Alberta farmers, who virtually had nowhere else to go for assistance. The earliest studies involved experiments in plant and animal breeding, animal nutrition, soil management and the like. The entomology department was formed in 1921, and the next year the staff had to organize the first government grasshopper control campaign. This \$248,000 program was estimated to have resulted in savings of more than \$18 million.

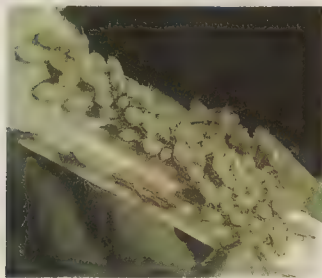


U OF A ARCHIVES



Above: The Agriculture and Forestry Centre, opened in 1981, features roof-top greenhouses which keep out the ice and cold of Alberta winters.

Left: A University soil survey team and their Model T Ford near Willow Creek in the foothills, 1922. **Below Left:** Percheron draft horses at the Animal Science farm, 1936.



It's milking time. Top: A dairy worker uses sophisticated milking equipment at the University Farm. Above: This photo taken in the Entomology department shows an ant "milking" its herd of aphids.

Below Right: A technician pollinates canola in the Plant Science greenhouses.

When the Faculty celebrated its 50th anniversary in 1965 a list was made of some of the significant research that had directly benefitted Alberta agriculture. The list included research on grade of Alberta pigs, increase in beef production from sire progeny testing work, improved swine rations and management, savings to feedlot operators from information on cattle feeding and management, and savings of chemicals and labor by immersion cleaning of milking equipment. Highlighted was the fact that the usefulness of synthetic riboflavin in poultry rations—it results in feed savings and improves the hatchability of eggs—was an original University of Alberta discovery. The ten items on the list were estimated to result in income or savings of more than \$6.5 million annually to Alberta farmers. And this didn't include the benefits resulting from the many cereal forage crops either introduced or developed by Faculty researchers, which were listed separately but for which dollar values couldn't be easily estimated. (This list included Renfrew wheat, Victory oats, Gateway barley, Altaswede red clover, Ferax alfalfa and 11 other varieties.)

While the Faculty continues to respond to the pressing needs of Alberta's farmers—and, since the introduction of the forestry program, its foresters—its program of research has become much broader and much more sophisticated in recent years. An indication of the latter is the fact that Agricul-

ture and Forestry is the University's second largest user of radioactive isotopes on campus. In addition, the Faculty's scanning electron microscope facility was the first of its kind on campus, and with updated equipment continues to serve users from across campus and across Canada.

An incredibly wide range of research takes place in the eight departments—Agricultural Engineering, Animal Science, Entomology, Food Science, Forest Science, Plant Science, Soil Science and Rural Economy—which today constitute the Faculty. There are the expected studies in animal health and nutrition, plant and animal genetics, insect control, and farm buildings and machinery, but there are also those with wider implications than the day-to-day concerns of agriculture and forestry.

Among these are basic research initiatives with potential implications for human health. These initiatives include a study by an animal science researcher showing that moderate amounts of exercise will restrict tumor growth in rats, and work being done by a food science professor which could lead to a simple enzyme assay capable of providing important information relative to a number of human diseases. Another animal science researcher is using pigs for studies of basic reproductive physiology—work which could well have human application.

The Forest Science Department in the Faculty is only 20 years old and the depart-



ment's current chair, Bruce Dancik believes that its relative youth gives it a different character from those of some of the longer-established schools where the emphasis is overwhelmingly on fibre production, reflecting their close ties to the forest industry.

"We don't see the forest as being just there to feed the mill," says Dancik, explaining that because of the era in which the department was established it was able to begin with a fresh outlook, one which focused on multiple uses for the forest. Among his colleagues are professors with expertise in wildland recreation, wildlife habitat and protected area management.

Issues which have come to the forefront in recent years are also being addressed in the Department of Rural Economy, the only social science department in the Faculty. Its recent research initiatives include investigations into the economics of the environment and the childcare concerns of rural Albertans.

Another sign of the times is a study recently conducted by researchers from the Department of Agricultural Engineering. They monitored the power supply to 23 Alberta farms to determine what sorts of disturbances were occurring and then assess the implications for the computerized equipment that is showing up on more and more farms.

Dr Tyrchniewicz, who assumed office as the Faculty's ninth dean in September 1988 describes himself as the Faculty's first dean who wasn't homegrown and its first-ever dean from a social science background. He came to the University from a position as director of the Transport Institute at the University of Manitoba, where he headed a team of engineers, lawyers and economists studying the transportation of grain.

Tyrchniewicz is a strong advocate of a broad approach to agriculture research; broad in both the base from which the research is conducted and in the scope of the research. He says that one thing that attracted him to the University of Alberta was its focus on interdisciplinary team research. He sees this approach as being important in agriculture and forestry, helping to overcome the specialist's narrow focus. "We are seeing a marked shift away from the individual scientist working in a corner by himself," he says.

Tyrchniewicz believes that it is important for the Faculty's survival in its next 75 years that it broaden its outlook, building on its proven strengths to address the wider con-

cerns of agriculture, forestry and society.

"I would characterize this Faculty as historically having focused on providing technical information to primary commercial production—and it has done it very well—in terms of teaching, in terms of research, in terms of extension," says the Dean.

"What this implies is that as a Faculty we haven't spent as much time being concerned with the broader issues of agriculture and forestry and the broader issues of society where agriculture and forestry interface with it," he says, stressing that he doesn't make that observation in a negative way. But he believes that the time has now come to expand the Faculty's outlook. "Our clientele isn't just rural Alberta, rural commercial farming Alberta," he says.

Since coming to the U of A Tyrchniewicz, has launched a strategic planning exercise within his Faculty. Among the issues he is hoping to see addressed are the international and societal contexts within which agriculture and forestry find themselves.

He points out that both agriculture and forestry are "very dependent" on export markets, and these markets, which are by their very nature volatile, are becoming increasingly so as governments wage subsidy wars. "This volatility," he says, "can literally swamp any of the good things we do internally."

A question that he wants his Faculty to address is "Can we do more to agricultural and forestry products in Alberta to create the employment and income here rather than literally exporting the employment and additional income to our customers in the U.S. or offshore?" As an example, the dean points with satisfaction to some "absolutely critical" work being done in the Food Science department to find niche markets for agricultural products—a Japanese-style soy sauce from Canola, for instance.

He also wants his Faculty to broaden its perspective to encompass interaction with the rural non-farm and with the urban non-farm community. "As citizens, we are all concerned that our environment not be destroyed and that our food supply be safe. At the same time we can readily become confused by the myriad of viewpoints, often expressed eloquently and emotionally. The Faculty of Agriculture and Forestry has a key role to play in developing and disseminating objective information on these issues.

"Where we as a Faculty can also be more helpful is in the education of our students to be aware that we live in an increasingly interdependent world—that we are not islands onto ourselves." ■



Above: More and more women are seeking careers in Agriculture and Forestry. Here June MacLellan, an administrative officer in the University's Department of Forest Science, demonstrates her ability with an axe.

Members Sought for Council

Graduates are being sought to fill a number of openings on Alumni Council.

With the expiration of current terms in September, vacancies will exist for individuals to represent the following faculties for three-year terms:

- Business
- Education
- Graduate Studies
- Home Economics
- Law
- Medicine
- Nursing
- Physical Education & Recreation

Under the terms of the Alumni Association constitution, a person must have graduated from a faculty in order to represent it on Council, and must be nominated by at least three fellow graduates from that faculty.

Individuals wishing to make nominations or themselves willing to serve, are invited to contact Susan Peirce (492-3224) for further information. Nominations are requested by 7 August 1990.

Reunion Weekend Approaches

Registration forms are being received at a brisk pace at the Alumni Office for Reunion Weekend '90.

Graduates who are planning to attend should register as soon as possible to avoid disappointment. Last year all events, except one, which required tickets were sold out, and the same result is expected this year. The weekend officially begins on Thursday, 20 September with the Alumni Association's Annual General Meeting. On Friday, 21 September the festivities get underway. Alumni from the 1922 to 1950 classes are asked to gather at the Faculty Club

for an Opening Reception. Concurrently, the 1951 to 1989 classes will be meeting and visiting at the Westin Hotel for the second annual "Grazing Party." A lively atmosphere and fantastic food are guaranteed. Saturday, 22 September begins early with a hot breakfast at Campus Earl's followed by tours of campus. Alumni, family and friends can then gather at "Super Saturday" to listen to stimulating presentations on a wide range of fascinating subjects by some of our best known professors. This event, which is being arranged by the Office of Public Affairs, had "standing room only" for most presentations in 1989 so alumni are encouraged to get

to the classroom on time (some things never do change!). Another sold-out event in 1989, the Homecoming Luncheon at the Faculty Club will offer a great view, a wonderful buffet, and an opportunity to take a break from the morning's activities and rest up for the afternoon and evening. Alumni may then return to Super Saturday and all graduates are invited by Dean Patricia Clements to "drop-in" to visit the Faculty of Arts.

Everyone is invited to wind up the day at the weekend's most popular event, the Dinner and Dance, featuring noted humorist Dr Mervyn Huston and music from the old time sounds of the Golden Altos. But a

warning—wear comfortable shoes. You're likely to end up dancing until 1:00 am to this popular band. And a reminder to classes wishing to hold reunions—it's not too late! Contact Sandra Kereliuk in the Alumni Office (403) 492-3224 for assistance in getting underway.

The Alumni Office offers a complete reunion assistance program for classes in order to make reunions easy to organize and enjoyable.

Families Needed

Each year, the University welcomes students from around the world.

Unfortunately, the

1990 Class Reunions

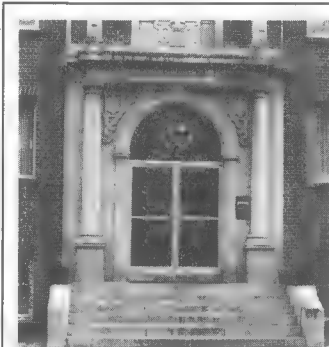
The Alumni Association is happy to assist individual classes in organizing special events during the homecoming activities of Reunion Weekend '90 (September 21-23, 1990) or reunions at other times. The following classes are currently planning reunions for the coming year:

CLASS/PLACE/DATE/CONTACT

'30 Graduating Class** Edmonton/Reunion Weekend/E Park Gowan
'36 Medicine Edmonton/September 27-29/F Elliott & M Dolgoy
'40 Graduating Class** Edmonton/Reunion Weekend/John Dewis
'40 Arts Edmonton/Reunion Weekend/Alice Brown
'40 Dentistry Edmonton/Reunion Weekend/Oliver Wright
'40 Engineering Edmonton/Reunion Weekend/Leslie Brown
'44 Agriculture Edmonton/July 19-22/Bill Andrew
'45 Nursing (Sept Dip) Edmonton/Reunion Weekend/Arlene Hanna
'48 Civil Engineering Kananaskis/September 7-9/Alex Mair
'49 Agriculture Edmonton/July 19-22/Douglas Low
'50 Agriculture Edmonton/July 19-22/Joe Gurba
'50 Nursing Edmonton/Reunion Weekend/Joan Day
'55 Civil Engineering Edmonton/Reunion Weekend/Bill Weir
'60 Home Economics Edmonton/Reunion Weekend/Paulsen
'65 Graduating Class** Edmonton/Reunion Weekend/Francis Saville
'70 Graduating Class** Edmonton/Reunion Weekend/Alumni Office
'70 Arts Edmonton/Reunion Weekend/Susan Peirce
'70 Civil Engineering Edmonton/September 29-30/Jack Gordon
'70 Law Edmonton/October 12-13/Marguerite Trussler
'70 Medicine Jasper/June 28-July 30/Marshall Hunting
'72 Nursing Gull Lake/July 21-22/Maureen Gustafson
'75 Sept Dip Nursing Edmonton/July 13-15/Shawne Letourneau
'80 Electrical Engineering Edmonton/Reunion Weekend/John Howard
'80 Law Edmonton/Reunion Weekend/Kerry Day
'80 Medicine Kananaskis/June 29-July 1/B Guspie & B Ward
'80 Physiotherapy Edmonton/Reunion Weekend/Cathy Sibanda
'80 Speech & Audiology Edmonton/October 25-28/Frances Walsh
ALL Jubilaires Edmonton/Reunion Weekend/David Norwood

Some locations and dates are tentative. Should you require information about the reunions noted, or if you wish to organize a reunion for a class not listed, please contact Sandra Kereliuk in the Office of Alumni Affairs.

** The 1930, 1940, 1965 and 1970 classes are the special classes at Reunion Weekend '90.



St. Joseph's College

Did You Know?

We offer 48 courses in Christian theology and philosophy. (See the U of A Calendar, section 44.)

1,600 U of A students registered with us in 1989-90

Our library contains 19,000 volumes and 125 periodicals.

Rooms available to August 24 from \$17 daily, meals extra, in the heart of the campus.

Phone 492-7681

Mass will be held at the College for SJC Alumni and Friends attending the University's Reunion Weekend '90. Brunch will follow.

Sunday, September 23, 1990
12:30 p.m.

adaptation of foreign students to Canadian culture is not always easy and the result may be a narrow view of the Canadian way of life.

The International Centre and the Alumni Association are addressing this dilemma through the Host Family Program. The International Centre informs visiting students about this program and invites them to apply. The Alumni Office informs graduates about the program and maintains a list of interested families.

Prospective host families and international students are then interviewed and matched. Through the resulting social contact the student's integration into Canadian culture is facilitated and host families benefit by learning more about another

country and way of life. There is no home-stay component.

If you are interested in taking part, call Susan Belcher at 477-5092 or Ione Challborn at 492-2692.

The Barbara and Myer Horowitz Library Endowment Fund

A donation to the Horowitz Fund is an imaginative way to recognize special occasions in your life or in the lives of others and at the same time contribute to a worthwhile cause.

Donations to the fund (along with a note about the special occasion, if any) can be sent to:

Chief Librarian
5-102 Cameron Library
University of Alberta
Edmonton T6G 2J8

RENEWAL NOTICE

If you haven't already sent in your 1990-91 dues payment for your Faculty's constituent alumni society, consider joining by sending in your dues today.

Dental Alumni Association	\$50
Drama Alumni Association	\$25
Alberta Alumni Foresters' Association	\$15
Medical Alumni Association	\$50

Send your cheque (payable to the society) to:

Office of Alumni Affairs
430 Athabasca Hall
University of Alberta
Edmonton, Alberta T6G 2E8

Please indicate your graduating year and degree.

Association Calendar

Branches

■ Victoria, B.C.

14 July 1990 Family Summer Picnic
Pacific Centre for Human Development / 2:00 p.m.
\$1.50 for adults; children free
Feel free to bring children and grandchildren

■ London, England

18 October 1990 Reception
Alberta House
Watch your mail for details.

Constituent Groups

■ Medical Alumni Association

11 October 1990 Annual Meeting
Westin Hotel, Edmonton / 7:30 a.m.
Open to all MAA members
For information: B Chaffey, 492-4523

11 October 1990 Annual Dinner
Westin Hotel, Edmonton / 6:30 p.m.
Open to all Faculty of Medicine graduates
The Classes of 1940, 1950 and 1965 will be honored and the Outstanding Achievement Award presented.
For information: B Chaffey, 492-4523

Other

■ U of A Alumni Association

20 September 1990 Annual Meeting
GFC Boardroom, University Hall / 5:30 p.m.
All alumni are welcome but must pre-register
To register: phone (403) 492-3224 by 10 September 1990

1990 DISCOVERY ADVENTURES

University of Alberta Alumni Association



MEDITERRANEAN/BLACK SEA CRUISE \$4999/Edmonton* 16 September to 1 October 1990

Come, sail to the world's most popular ports of call on the world's most celebrated ship—the *Royal Princess*. Celebrate the "Love Boat's" Royal arrival in Europe as the *Royal Princess* sails across the brilliant blue waters of the Adriatic, Mediterranean and Black Seas to legendary and romantic lands. Begin in romantic Venice, then set sail for the walled city of Dubrovnik, Yugoslavia. You will also visit Crete, Izmir and Istanbul in Turkey, Yalta and Odessa in the U.S.S.R., and Athens and Mykonos, Greece before disembarking in Naples. Enjoy all of these wonderful and fascinating sights from your deluxe floating hotel—the best way to visit the Mediterranean.

WINGS OVER THE NILE

\$5219/Calgary*

20 November to 2 December 1990

This is the most comfortable and comprehensive Egyptian trip available today. It includes more of the "must see" sights and does it the easy way, by air and boat. You'll enjoy the glories of Cairo—the pyramids, the enigmatic Sphinx and the golden treasures of King Tut. Then, fly across the Suez Canal to spectacular St Catherine's monastery on Mount Sinai. Next, relax as you cruise on the Nile River, tracing the paths of Cleopatra and the pharaohs from Luxor, to Esna, Edfu, Kom Ombo and Aswan. Come, join our exclusive *Wings Over the Nile*.

For more information about the 1990 Discovery Adventures, please contact Sandra Kereliuk in the Office of Alumni Affairs (403) 492-3224. Waiting lists are maintained for "sold out" tours.

* Prices shown are lowest available, per person (double occupancy) from the gateway city indicated.

From Field and Forest to Boardroom and Laboratory

A lot of farmers. Foresters. A provincial premier, a senator, more than one dean, scores of scientists and researchers, salesmen, a chartered accountant or two, deputy ministers, teachers, hoteliers and more.

Graduates from the Faculty of Agriculture and Forestry have gone on to a variety of interesting careers after graduation.

Some have returned to positions in the Faculty and four of them (Robert Sinclair, '18; Arthur McCalla, '29, '31 MSc; Fred Bentley, '39, '42 MSc; and Roy Berg, '50) went on to serve as its dean. McCalla was later the University's first dean of graduate studies, and an Aggie at one time served as dean of the business school (Hu Harries, '45).

Harries, who died in 1986, was also active in government and politics, and that's another Aggie tradition. A number of the Faculty's graduates have held office at one level of government or another. This includes the current premier of Saskatchewan (Grant Devine, '69 MSc), a retired senator (Donald Cameron, '37) and the University's vice-president (administration) who in the 1970s held Alberta cabinet portfolios as minister of lands and forests and minister of utilities and telephones (Allan Warrack, '61).

Other graduates have served the public from government staff positions. Graduates have accepted positions such as director of the Manitoba animal industry branch (Albert Church, '49), deputy minister of agriculture for Alberta (Les Usher, '49), assistant deputy minister with Agriculture Canada (Art Olson, '64, '67 PhD), assistant deputy minister of the public lands division of Alberta Forestry, Lands and Wildlife (Murray Turnbull, '61) and director of marketing and trade for Alberta Agriculture (Cliff Wulff, '64). And, of course, many of the men and women who serve as Alberta's district agriculturists are U of A grads.

Aggies have also reached prominent positions in firms in the private sector. Among them are a former vice-president of JI Case Canada (Les Warden, '50), a chief agronomist for Roger's Engineering of Saskatoon (Allen Jobson, '69, '71 MSc, '75 PhD), the vice-president, marketing for Sheritt Gordon Mines (Joseph Fraser, '46), and the former CEO of the Alberta Wheat Pool (Wally Madill, '56).

It would be impossible to give anywhere near a complete list of the Agriculture and Forestry graduates who have distinguished themselves in scientific research, but that list would include the director of the Bethesda Research Station for the U.S. department of agriculture (Waldy Klassen, '59 MSc), a former director of the Smithsonian's Biodiversity Institute (Terry Erwin, '69 PhD), a former senior research scientist with the Canadian department of agriculture (Karl Ivarson, '51, '53 MSc), the former director of the NRC's Atlantic Regional Laboratory (Fred Simpson, '44, '46 MSc), and a professor emeritus of soil science from Ohio State University who helped develop soil surveys for many parts of the U.S. (Nick Holowaychuk, '29, '31 MSc). The chair of the biology department at Laurentian University (Joseph Shorthouse, '70 MSc) is also a graduate.

Other administrative positions that Faculty graduates hold or have held include head of Alberta Agriculture's food laboratory (David Schroder, '64, '69 MSc), chair of the U of A's economics department (Mel McMillan, '67 MSc), executive director of the Alberta Water Resources Commission (Alf

Birch, '75 MSc), CEO of Potatoes Canada (John Brennan, '85 MAg), chair of the nutritional sciences department at the U of Toronto (Harvey Anderson, '64, '66 MSc), and associate dean of the U of Calgary's Faculty of Medicine (Robert Church, '62, '63 MSc).

Further afield geographically, the Faculty has educated the dean of the Faculty of Agriculture at Ghana's University of Science and Technology (David Asante-Kwatia, '77 MSc), the director of planning and development for the East African Development Bank (Kareko Gatere, '80 PhD) and the head of the Department of Agricultural and Natural Resource Economics at India's Indira Ghandi Agricultural University (Dinesh Marothia, '81 PhD). Another grad returned to Jamaica in 1957 and is veterinary officer for the ministry of Agriculture (Kilburn Urquhart, '48).

It's also interesting to note that a great many Agriculture and Forestry graduates have taken part in diverse projects in developing nations. There's a graduate managing a large wheat farm in Tanzania under contract with Agriculture Canada (Hugh Campbell, '52), a fellow graduate served as project administrator for the Tanzania-Canada Wheat Project (Grant Wagner, '50), another went to Niger as agricultural-engineer-on-site for a project which involved digging wells and installing hand pumps (Duncan Campbell, '81), another served as team leader for the U of Manitoba-CIDA project at the University of Zambia school of agriculture (Donald Bray, '52), another has served development projects both in the Phillipines and in Africa (Ron Prins, '70), and many, many more have contributed to international development in other ways.

An Aggie is the horticulturist at the Calgary Zoo (Donna Balzer, '78), and other graduates have found themselves following trails somewhat removed from

those of most of their classmates. Within the Faculty's graduate family there is an accounting instructor at the U of Calgary (Chris Eggertson, '77), a president of the St Lucien Hoteliers and Tourist Association (Mike Bevan, '45), a president of a B.C.-based broadcasting company (Donald Brinton, '51), a lawyer specializing in agricultural law (Marjorie Arndt, '78), and a commercial real estate property manager (Roger Lore, '78). And there's a couple of graduates who combine a computer agency with their Hereford farm near Balzac (Beverly Jones, '86, and Keith Jones, '82).

The forestry program is a relatively recent addition to the Faculty, but its graduates have also found their way into responsible jobs—holding positions such as operations superintendent for Weldwood's Hinton operation (Bryon Muhly, '77), head of tree improvement and ecophysiology research at Nanaimo for MacMillan Bloedel (Glen Dunswoth, '75, '77 MSc), tree management group head for Proctor and Gamble Cellulose at Grande Prairie (Pat Wearmouth, '75), director of forest industry development division, Alberta Forestry Service (Rod Simpson, '74), and head of the management planning section of Alberta Forestry, Lands and Wildlife's Timber Management Branch (Evelynne Wrangler, '78).

And of course there are the great many graduates who are on the front lines: the farmers and foresters using their Faculty education to manage our important renewable resources on a daily basis.

Agriculture and Forestry graduates have put their education to work in a wide variety of ways.

A Family Tradition

When Eldor Berg, '47 BSc(Ag), arrived at the University of Alberta in the fall of 1943 to begin studies in the Faculty of Agriculture he had no idea that he was beginning a family tradition. And even if he had, he would have had precious little time to ponder the implications, for classes had been in progress for some weeks and a geometry test was imminent.

But the harvest was safely in. And for the Bergs of Millicent, Alberta—as it did for most Alberta farm families—getting in the harvest took precedence over almost anything else.

Eldor Berg was the third of nine children—eight boys and a girl—in the family of Ellen and Petrus (Pete) Berg, who owned and operated a farm and ranch near Millicent. Pete had left Sweden for Idaho in 1914 and when Ellen, his childhood sweetheart, joined him in 1919 they moved to Alberta to settle on a tract of land obtained from the CPR.

The Bergs were innovative farmers, not afraid of new ideas, and eager to keep up with the latest developments in agriculture. Therefore when Eldor completed high school—something the Depression had prevented his older brothers from doing—his father offered him the opportunity to attend Olds School of Agriculture. From there he might bring back practical information to improve the farm operation.

Eldor recalls that he originally had no intention of going on to university, but when he graduated from Olds, two scholarships awaited him should he wish to further his studies. "Dad's belief was that if you won something you should take advantage of it," he says—so on he went.

The reports that Eldor brought back from Edmonton must have been encouraging, because four of his brothers

decided to follow him to the University. (And like him, more often than not they wouldn't arrive until after the harvest.)

Eldor, who now lives in Calgary, joined the Consolidated Mining and Smelting Company shortly after graduation and was Cominco's chief agrologist when he retired three years ago.

His brother Don, '49 BSc(Ag), returned to Millicent after his graduation and continues to farm Crow Butte Ranch.

Roy, '50 BSc(Ag), the third graduate in the family, was appointed a lecturer in the Faculty when he graduated. Two years later he went on to further studies at the University of Minnesota and returned to the Faculty as an assistant professor in 1955. One of the Faculty's most distinguished graduates, he served as its dean from 1983 until 1988. He is internationally recognized for his research in animal genetics and his leading role in the work done at the University Ranch at Kinsella, Alberta—one of the largest and most successful beef cattle breeding research operations at any university

in North America.

The fourth of the brothers to graduate, Sten, '54 BSc(Ag), is manager of Market Logistics International Limited, a consulting firm which specializes in agricultural project development. A former chairman of the Alberta Cattle Commission, he has lived at Ardrossan, Alberta since graduation and now serves as deputy reeve of Strathcona County.

Leif, '59 BSc(Ag), the fifth of the boys to graduate from the Faculty, lives in Edmonton and is district manager of the Food Production Inspection Branch of Agriculture Canada.

In 1974 Brian Berg, '74 BSc(Ag), followed in the footsteps of his five uncles and became the first of a second generation of men from the family of Erik and Ellen Berg to graduate from the U of A agricultural faculty. He now farms at Duchess, Alberta on a ranch across the Red Deer River from his grandfather's original tract.

Also in 1974, Roy's daughter, Ruth '74 BSc(Ag), added a new dimension—a female one—to the developing family tradition

when she graduated from the Faculty with specialization in animal science. Ruth who married another Aggie—Ron Ball, '75 BSc(Ag), '79 MSc—now lives in Guelph, Ontario, where she is a homemaker and commissioner for Girl Guides of Canada.

Two of Ruth's sisters are also graduates of the Faculty. Paula, '76 BSc(Ag), who specialized in range management, is a land use specialist with the Alberta government. Nora, '81 BSc(Ag), studied entomology and is now a technologist with the University's Department of Entomology.

Leif's son Shane, '85 BSc(Forest), moved further west after graduation and now lives in Windermere, B.C. and works for that province's ministry of forests. Eldor's son Bjorn, '76 BSc(Ag), '83 MSc, earned his first degree in range management and went on to obtain a master's degree in wildlife productivity and



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management. A forage specialist with Alberta Agriculture, he makes his home in Vermilion.

Blair Stringam, '88 BSc(AgEng), whose mother was the lone girl in Pete and Ellen's family, earned his U of A degree in agricultural engineering and has gone on to further studies at Utah State University.

Another two Berg agriculture graduates are on the way: Leif's son Nolan, who is in an agronomy program, and Don's son Dale, who is enrolled in a program of studies in food science. Both are members of the Class of 1991.

Their graduation will extend the tradition Eldor Berg began those many years ago to 14 Agriculture and Forestry graduates from two generations of one Alberta pioneer farm family.

Crop Scientist Honored

Among the select group of Canadian scientists elected into fellowship in the Royal Society of Canada's Academy of Science this year is an internationally-acclaimed graduate of the Faculty of Agriculture and Forestry at the University of Alberta.

Ken Kasha, '57 BSc(Ag), '58 MA, now a professor of crop science at the University of Guelph, was elected into the prestigious society in recognition of his innovative contributions to improving crop plants. He is the inventor of the *Bulbosum* Method, which makes possible the breeding of new strains of barley in half the time previously required—five or six years instead of the usual 10 or more.

In 1983 his *Bulbosum* technology, which has been commercialized and is now in use in many countries, earned him the \$75,000 EC Manning Foundation Award, given to recognize outstanding Canadian innovation.

The *Bulbosum* Method is a breeding technique involving the creation of haploid plants from immature barley embryos



Royal Society Fellow Kasha

to rapidly give pure-breeding lines from barley crosses.

A haploid plant has only one set of chromosomes, whereas normal (diploid) barley has two. Because the haploid has but a single set of chromosomes all its genes are expressed, making selection easier for the plant breeder, who proceeds to artificially double the chromosomes (giving the plant two identical sets of chromosomes) and obtains a specimen which is instantly pure-breeding.

Because barley is self-pollinating it is ideally suited to this technology; however there is a great deal of interest in applying it elsewhere, and similar methods are being sought for wheat and other crops.

Kasha has also developed a method of tricking immature pollen into growing into an embryo instead of maturing normally—thereby giving plant breeders access to a more complete selection of the genetic combinations possible from the crosses they make.

A native of Lacombe, Alberta, Kasha has taught at Guelph since 1966. He is currently the Canadian co-ordinator of a joint Canada-U.S. project to map the barley genome. This project involves about 50 researchers in the two countries and puts him in touch with his alma mater,

where some of the evaluative work is being done by Plant Science Chair Keith Briggs, a co-applicant in the project.

Agronomy Award Goes to Grad

A University of Alberta graduate is the latest winner of the prestigious Agronomy Merit Award.

Early this year the award, which is presented periodically to "deserving Western Canadian farm researchers," was given to Phil Thomas, '67 BSc(Ag), '74 MSc, supervisor of oilseed crops for Alberta Agriculture.

The award ceremonies took place at the Alberta Canola Growers Association banquet held in Edmonton on January 25. The presentation itself was made by John Harapiak, manager of agronomy for Westco, which sponsors the award in cooperation with the three prairie Pool organizations.

Harapiak described Thomas as "an Albertan who has worked hard and expended a great deal of energy to make canola production economically successful for prairie farmers" and as "a major contributor to the canola success story."

Thomas who works out of Alberta Agriculture's field crops branch at Lacombe, has played a large role in placing technical information in the hands of canola growers. Almost 20,000 copies of the reference manual he developed for the Canola Council have been sold.

The Agronomy Merit Award is presented to individuals who in the estimation of their colleagues and peers have made distinguished and outstanding contributions to successful crop production in the prairies. It has been presented on 14 previous occasions, one of those times to Dr Fred Bentley, '39 BSc(Ag), '42 MSc, former dean of the University's Faculty of Agriculture and Forestry.

Responding to a Northern Challenge

The challenge that agricultural engineering professor John Feddes passed on to graduate student Deny St. George was an interesting one: to find a method of growing affordable fresh vegetables in the North.

On the one hand a traditional greenhouse isn't viable because of the short growing season. On the other, a protected growth chamber relying on artificial light isn't practical given the high price of energy in the North.

St. George's solution, which he developed to a prototype stage for his master's degree, lies somewhere in between. He's looking at housing the plants in a well-insulated opaque building and bringing sunlight to them via fibre-optic cables connected to a sun-tracking array of lenses driven by computer. At times when sufficient sunlight isn't available, the lenses would be automatically shifted to an artificial light source.

Similar technology is already being employed in Japan to bring sunlight to solariums enclosed by Tokyo highrises, and in Seattle NASA engineers are investigating the use of fibre optics to bring light inside space stations.

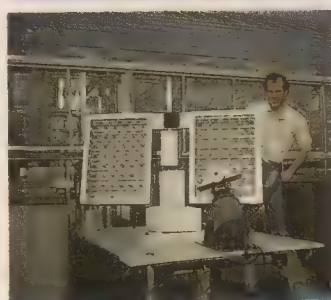
St. George's prototype for application in the North was built with funding from the Government of the Northwest Territories and performed well in tests conducted on the roof of the Agriculture and Forestry Centre on campus. It features two banks of 48 lenses each, with each lens connected to a fibre optic cable.

St. George graduates this summer, but Feddes hopes to keep the project alive. If continued funding is available the prototype will be taken to Yellowknife for testing and then, if all goes well, vegetable growing tests will commence.

Feddes says that much work remains to be done and

At Work for Agriculture Forestry, and Society

A sampling of the diverse activity of researchers from the University of Alberta Faculty of Agriculture and Forestry.



Top: Plant breeder Briggs in a field of his new Cutler wheat. **Above left:** Graduate student Deny St. George examines his prototype equipment which may one day be used in greenhouses in the North. **Above right:** Working reclaimed land at Highvale.

speculates that some novel techniques for facilitating the delivery of light to the plants will have to be designed if a fibre optic greenhouse is to be workable. However, he points out one real advantage of the technology: there is no need to worry about thermal stress to the plant. While the fibre optic cables transmit the sun's photosynthetically active radiation, heat-carrying infrared radiation is filtered out.

The End of a Quest

"Above all, a plant breeder has to be patient," says Keith Briggs, the plant breeder who is chair of the Plant Science

department at the University of Alberta.

Briggs explains that a typical breeding project takes 10 or 12 years from conception until the completion of field trials. And his Cutler wheat, just now being registered, took even longer—almost 18 years.

Cutler is the fruition of a quest that began when Briggs, a native of England with a doctoral degree from the University of Manitoba, came to the University of Alberta in 1969. "At that time I had a vision of a high-yielding, early-maturing wheat of intermediate protein which would be suited to the

Parkland regions of Canada," he says.

The history of Cutler, which Briggs describes as coming "very, very close" to being the ideal wheat he sought, show that it pays for plant breeders to not only have patience but long memories as well.

Briggs explains that while Canada is famous for its hard red wheat grown on the southern prairies, almost 80 per cent of the world wheat trade is in lower protein wheat, and it was this market for which he was targeting his Parkland variety.

Canada has a very strict classification system for its wheats, however, and a promising cross Briggs came up with in the mid-'70s didn't conform in seed type for the "Utility Wheats" classification that was, at that time, the only access to the market for which he was aiming, and it was shelved.

However, when the Canadian Wheat Board later introduced a new classification for all-purpose wheats, "Canada Prairie Spring," Briggs remembered the cross he had shelved some years previously and developed the high-yielding, early-maturing Cutler.

Named for the first chair of the University's Plant Science department, Cutler is now being distributed by United Grain Growers to commercial seed growers, and the biggest hurdle lies ahead—acceptance by farmers. Briggs is confident, however. After all, his wheat matures three days earlier than any other in its class.

"It may be the earliest wheat ever to be registered in Canada," he says.

Getting The Bigger Picture

"We're trying to give economic analysis a broader perspective," says Wiktor Adamowicz, who specializes in a rapidly-growing field of economic theory: the economics of the environment.

Adamowicz, who has two

Recognizing the Real Joy

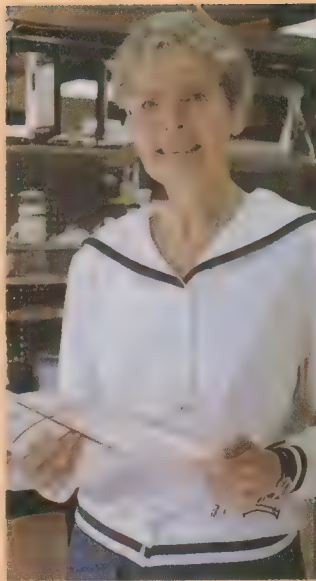
During more than 35 years as a teacher and researcher at the University of Alberta, Mary Spencer has accumulated her share of memories.

While the university professor of plant science willingly discusses her numerous honors and the exemplary research and service from which those honors have sprung, the memories she introduces are of other people—colleagues and students—and of misadventures now distant enough to be remembered with a smile.

Seated in her office in the well-equipped Agriculture and Forestry Centre on campus, Dr Spencer recalls many years spent in the less-than-ideal confines of the old South Lab. No ivory tower it: the real world had a habit of insinuating itself all too frequently in the form of errant snowflakes in winter and stifling heat in summer.

"The only way we got air conditioning of any sort was to prove that we couldn't cool water baths down to the temperatures the tissues needed," says Dr Spencer, who smiles as she recalls that her office was adjacent to the ice machine—"not only was the machine itself noisy, but it was a great place for people to gather and visit."

Also located in the South Lab for many years was the Food Science Department. "I enjoyed my food science neighbors but . . ." says the plant science professor who admits ("I suppose it can come out now.") to doing her best to avoid them at times—those times when they were recruiting for taste panels for some of their more dubious experiments. She particularly remembers entomologist Brian Hocking's attempts to find a place in the gastronomic universe for Alberta bees. She's fully aware that in some cultures bees are a delicacy, but



Dr Mary Spencer

doesn't recall with gusto the entomologist's efforts to have her taste pickled bees, bees in sherry, or bees in other guises.

"Brian Hocking was a truly fine person," she says, "but that was hard on our friendship." That friendship endured however and one of her most poignant memories is of the entomologist "trying to give right up to the end," spending his final days in a hospital bed completing a text that his son later saw into press.

Although she was born in Regina, Mary Spencer can claim a birth link with the Alberta pioneering tradition to which she has contributed in a different era with her ground-breaking work in plant biochemistry. Her Iowa-born mother was a member of a pioneer family which settled in the Ohaton area, near Camrose; her father came west from Ontario and taught school in Wetaskiwin and Edmonton before moving to Regina, where he became a lawyer.

Dr Spencer grew up in the Saskatchewan capital and graduated from Regina College and the University of Saskatchewan, where she earned high honors in chemistry. A scholarship took her to Bryn Mawr College, Pennsylvania, where she earned her MSc. After

working in industry for three years she returned to school, this time at the University of California, Berkeley for PhD studies in agricultural chemistry.

At that time scientific interest in ethylene was awakening, and Dr Spencer recalls "taking the bait" when choosing a thesis topic. The field was so new that no supervisor could be found at Berkeley, and she worked instead under a researcher from the USDA lab at Albany, California.

Ethylene is a gaseous hydrocarbon which is both a plant hormone and an environmental pollutant. Its agricultural potential was first indicated when it was observed that oranges growing near gas street lamps or shipped in railway cars with kerosene heaters ripened quickly, and ethylene—a byproduct of combustion—was identified as the agent involved.

Ethylene was the first plant growth regulator used commercially and is likely the most widely used growth regulator in the world today. It has been shown to play a role not only in fruit ripening but in the control of germination, cell growth and other aspects of aging. Because very small amounts have very powerful effects, excess ethylene in the atmosphere—largely as a result of incomplete combustion of hydrocarbon fuels—is regarded as cause for concern.

Dr Spencer and her husband came to Edmonton in 1953. He went to work with the Alberta Research Council and she joined the U of A faculty as an assistant professor of biochemistry, switching to the Plant Science Department in 1963. From her lab have come many original contributions to knowledge about ethylene and its effects on plants, and she also did some early work to show that the human body produces ethylene. Still actively involved in research, Dr Spencer is currently

looking at ethylene-carbon dioxide interactions, a study of special significance because of the increases in atmospheric carbon dioxide now known to be taking place. She is also investigating the possible use of ethylene to synchronize weed germination—if weeds could be made to germinate all at one time, it would simplify their eradication.

While her research accomplishments have been formidable, many of the honors the plant science professor has received also recognize her broader contributions.

In 1971 Dr Spencer was one of the first two women ever to be appointed to the board responsible for the direction of the National Research Council. During her two NRC terms she served on numerous committees, served as advisor on biology and chaired a national committee on forestry research. In 1986 she was named to the National Science and Engineering Research Council and is currently serving a second term. At the University she has served as a member of the University Research Policy Committee and of the faculty councils of Arts and Science, Medicine and Home Economics. From 1976 to 1979 she was a member of the University's Board of Governors.

Dr Spencer was elected to fellowship in the Royal Society of Canada in 1976 and is a recipient of the Queen Elizabeth II Silver Jubilee Medal. In 1984 she was named a "university professor"—only 10 professors had previously received this prestigious designation introduced at the University in 1967.

The honors, she admits, have been gratifying. However her greatest satisfaction, she says, comes from the many good students who have gone on to great things. "For any university professor," she says, "the real joy is working with his or her students."

U of A degrees—'81 BSc(Ag) and '83 MSc—earned a PhD in agricultural and applied economics from the U of Minnesota. Now an associate professor of rural economy at the U of A, he is particularly interested in the economic analysis of recreation behavior and the effects of environmental quality change.

His recent studies have focused on the effects of agricultural drainage on wildlife, the economic benefits of Alberta waterfowl habitat, and the effect of environmental quality on recreation demand as measured by the response of recreational hunters to changing circumstances related to bighorn sheep populations.

Adamowicz says that the social costs of economic growth may include the loss of social benefits associated with displaced natural areas. "In general," he says, "growth of material goods and services has come at the expense of environmental amenities through both resource utilization and environmental pollution."

But, he points out, this has not been reflected in traditional economic analysis: "Historically environmental amenities have been valued at zero or near zero due to the absence of market prices associated with them."

What Adamowicz and other environmental economists are trying to do is to develop economic theory that evaluates benefits arising from environmental quality.

According to the rural economy professor, any new resource development involves tradeoffs. It only makes sense to consider all of the benefits and costs of the alternatives involved. "Then you can look for the biggest bang for the buck."

He goes on to point out another consideration: "Flip this around, and it gives us some basis upon which to evaluate pollution damage—from oil spills or whatever. There's a real need

for this at present with a number of court cases going on, including the case involving the Exxon Valdez."

A Fundamental Interest in Muscle

As an animal scientist interested in muscle, Vickie Baracos has studied not only sheep, rats, goats and chickens, but humans.

The basic question which intrigues the assistant professor of animal science at the University of Alberta is "What makes muscle grow or waste away?" The question, she points out, is not based in any particular species. It is of fundamental interest to scientists concerned with animal production, but it is also a problem addressed by medical researchers interested in human health.

"About half of the labs doing work, in muscle biology are in medical departments," says Baracos, an Alberta graduate—'77 BSc(Ag)—who did postdoctoral work at Harvard Medical School after earning a PhD at Nottingham University in England.

In the course of her investigations into muscle wasting in cancer, Baracos made the significant discovery that moderate amounts of exercise may be effective in slowing the growth of tumors. In her studies she put a group of laboratory rats on swimming regimes of various intensities and found that tumors in these rats were consistently

15 to 40 per cent smaller than those introduced into a control group of non-exercising rats at the same time.

The sex of the rats or the intensity of the exercise regime didn't seem to be important. ("You don't have to be an elite athletic rat to get such a response," says the animal scientist.")

Baracos is cautious about the potential implications these findings may have for treatment of cancer in humans, pointing out that more experimentation is necessary to find out, among other things, if all tumors respond to exercise and the amount of exercise required. Nevertheless, she feels it is a "very promising line of study" and is currently collaborating with colleagues from the Cross Cancer Institute and the Faculty of Rehabilitation Medicine in work involving lung cancer patients.

Seeking Solutions for Contaminated Soils

Marv Dudas has begun looking for answers to some serious questions being faced by government and industry: questions about how to best clean up a wide variety of synthetic organic-based compounds—industrial chemicals, solvents, petroleum products and so on—that have found their way into the soil.

Dudas, a professor of soil science at the University of Alberta, specializes in the

biogeochemistry of trace elements. He heads a research group which has just begun a large research program investigating the environmental behavior of synthetic organic chemicals, such as benzene, gasoline, pentachlorophenols and toluene which have commonly entered the soil through spills or through leakage from waste repositories or underground holding tanks.

With \$500,000 in funding (over three years) from a joint industry-NSERC grant supported by the Institute for Chemical Science and Technology, Dudas and his team of graduate students and research associates will seek information in the lab and in the field on factors that control the retention, loading and release of these chemicals at contaminated sites. The goal is to provide cost-effective soil remediation strategies for soils and subsurface environments.

"We know these pollutants are there. The question is 'How are we going to clean them up?'" says the soil scientist.

Understanding an Unpopular Fly

Entomologist Doug Craig has spent a good deal of time studying black flies.

The U of A professor has studied Canadian black fly species in the field and in the lab, and he has spent two sabbatical leaves in the Pacific working on serious human-biting black flies of Polynesia.

"In some places there," says Craig, "the black flies are so bad they make any problem here in Canada with such flies pale into insignificance." In addition to helping identify the most serious Polynesian problem species, he's been intrigued by the interesting zoogeographic question: "Just what are black flies doing on



An electron microscope image of a black fly larva shows the two large head fans.

small islands in the middle of the vast Pacific?"

Craig's particular interest is the behavior of black fly larva in their natural habitat, running water. From his studies and those of his graduate students there has emerged a quite detailed picture of how the larva manipulate the water and employ their two head fans in feeding.

While most of the research Craig has conducted or overseen has been directly or indirectly aimed at controlling black flies through the efficient administration of insecticides or a natural toxin to the larva, the same research is also proving important to maintaining black fly populations.

"Not all black flies bite people," Craig points out, "only a few species bite." And black flies are a staple in the diet of many fish species. Fewer black flies means fewer fish, he says.

"Black flies are very particular about where they position themselves on rocks in order to optimize the flow of water through their fans," says Craig, adding that the widespread manipulation of streams has taken away prime black fly breeding larva.

"Understanding the behavior of black fly larva is an important element in stream rehabilitation."

A Productive Research Relationship

When animal science professor George Foxcroft discovered that pigs were excellent research animals for his work on the hormonal control of reproduction it was the beginning of a 17-year working relationship.

"Swine fill an important niche in detailed studies of basic reproductive physiology. There are questions we can ask in swine that can't be answered in experiments done on smaller laboratory animals or humans and primates," says

Researcher Foxcroft with one of his research subjects.

Foxcroft, who holds the NSERC Industrial Research Chair in Swine Reproductive Physiology, established with funding from NSERC and the Alberta Pork Producers Development Corporation.

A current project in Foxcroft's lab involves understanding how lactation suppresses fertility. Considered the classic human contraceptive, infertility during lactation is a big problem for swine producers. Although they want sows to produce large litters and a lot of milk, they don't want the consequent lack of fertility.

But infertility is not a problem for all pigs—not for Chinese "Meishan" pigs. This special strain of pig has tremendous fertility compared to European swine. Meishan have litters of up to 18 piglets and reach puberty at an age of three months rather than six.

Foxcroft is collaborating with researchers at the University of Nottingham on comparative physiology studies of Meishan and European pigs. This work is aimed at identifying the mechanisms that will be affected when the genetics for high fertility from the Meishan are incorporated into our domestic swine.

The work with the Meishan pigs is typical of the mix between basic and applied research that takes place in Foxcroft's lab. "We want to find the basic mechanisms

controlling problems with infertility," he says.

"However we will continue to interpret our findings in the context of producer problems and concerns."

Looking for Problems at the End of the Line

When the Holstein dairy cow placidly enters the feeding station, almost magically a measured amount of feed is delivered in front of her.

The secret, it turns out, is in the necklace she is wearing. It is magnetically coded to identify her to a computer programmed to individually regulate her daily feed intake and optimize her milk production.

This is but one example of the increasing use of computers on Alberta farms. However, computers—as many of us have found out to our dismay—rely on an uninterrupted power supply.

As he began to see more and more computerized equipment appearing on Alberta farms, Jerry Leonard, professor and chair of the Department of Agricultural Engineering at the U of A, began to wonder if farmers, many of whom are at distant locations on power supply lines, faced special problems relating to power supply disturbances.

To find out, Leonard and research assistant John Lichko (with help from electrical engineering professor Don Koval) monitored 23

farmstead sites from Peace River to Lethbridge. "Every site had some sort of disturbances," Leonard reports. Many of these, he says, were the result of on-farm activities—large motors starting up and so on—and others originated with electrical storms.

While the occasional "hiccup" in the supply could be traced to power company activity, on the whole, he says, the utility companies seem to be doing a good job.

To minimize problems with computerized equipment, Leonard suggests that farmers isolate such equipment from large electrical motors and ensure that their farmstead wiring is "up to snuff."

He also plans to use the information provided by his farmstead monitoring to make recommendations about what sorts of disturbances agricultural electronics should be designed to withstand.

Sharing the Forest

The chart on forestry professor Jim Beck's desk lists 30 wildlife species down its left side. Species like elk, grizzly bear, mule deer, and caribou, but also chipping sparrow, hoary bat and long-toed salamander.

The chart is a distillation of a good deal of preliminary work aimed at devising a timber harvesting schedule for Weldwood Canada's forest management lease near Hinton, Alberta. The goal is to maintain a continuous supply of habitats for all of the wildlife species that frequent the lease in order to ensure viable populations continue.

Across the chart are listed the different types of habitat found on the timberland—immature stands, mature stands, old-growth stands, riparian (the edges of rivers, streams etc.), grassy meadows, upland shrubbery—and for each species the habitat requirements are indicated.

Beck explains that most of the 30 species listed are



representative—if their habitat needs are met the environmental requirements of other species will be also. Three species—trumpeter swan, woodland caribou and long-toed salamander—are listed because they are endangered.

Initial work on the project was done by Weldwood in cooperation with Alberta Wildlife biologists. They turned to Beck, a professor of forest science at the U of A, because of his computer modelling expertise. He is taking the habitat information and modelling its availability over time (100-plus years) using four different scenarios.

The first will show how current habitat levels will change even if there is no forest harvesting. The second will maximize habitat for each species and relate that to harvest level and habitat for the other 29.

He will next show the habitat implications over time of current harvesting and wildlife management practices. Where the maintenance of any species is threatened under this scenario, it will be determined if the problem is one of habitat or wildlife-human interaction.

Finally, Beck will model potential solutions to the problems identified under the current practices scenario to examine their effectiveness.

The forest science professor says that the work is already pointing to some conclusions. He expects that a policy of "aggressive snag retention and recruitment" will be indicated (snags are dead standing trees) and that some measures to limit access following logging may be necessary.

Plants That Glow in the Dark

Aladar Szalay is achieving glowing results in his work. Literally glowing.

Through genetic manipulation, Szalay, a University of Alberta professor recognized as one

of the world's foremost molecular biologists, has created plants that glow in the dark.

Szalay came to Alberta in 1988 from Cornell University in New York, where he coordinated the DNA synthesis facility at Cornell's Bruce Thompson Institute for Plant Research. He was recruited thanks to \$500,000 worth of grants from Canadian Pacific Ltd. and Alberta Agriculture which created the Research Chair in Plant Biotechnology that he now occupies.

From the work that the Hungarian-born plant biotechnologist and his research group are doing could one day come plants that are genetically engineered to be resistant to cold, disease and insects. It could result in plants custom designed for the Alberta environment. Perhaps even plants that could serve as factories for pharmaceuticals or weed-killing toxins.

But why the glowing plants? Szalay explains that while techniques exist to "put any gene we want into any plant," that is only a beginning. "Not all genes are active in every cell. We must learn how to control the signals that turn genes on and off in order to engineer intelligently."

To determine whether the "switches" that regulate gene expression are turned off or turned on Szalay uses

bioluminescence—light produced by living organisms.

He introduces the light producing ability to plants by importing a gene found in a bioluminescent marine bacteria called *Vibrio harveyi*. That gene is inserted into the chromosome of a plant next to whatever plant gene he is observing and fused to the same "promoter" region that triggers expression of the gene of interest.

After that it is simply a matter of observation (aided by sophisticated low-light video equipment). When the gene being studied is expressed, those plant cells which have taken up the bioluminescence gene begin to glow.

Seeking Clues from Life's Catalysts

Assistant professor of food science Monica Palcic is part of a University of Alberta group looking for new ways to measure enzyme activity too difficult to detect using current methods.

Enzymes are the catalysts of chemical reactions upon which life depends and as such are implicated in a number of diseases. Palcic and her colleagues are particularly interested in the enzymes responsible for certain changes to the surface of cells (changes in their oligosaccharide structure) that have been linked to the

progression of a number of diseases, notably cancer.

Palcic explains that while it has long been understood that, for unknown reasons, changes in the carbohydrate portion of certain glycoproteins and glycolipids on the cell surface appear to correlate with whether a tumour cell is capable of metastasis—the invasion of other tissue types in the body—the methods which have been employed to assay the enzymes involved have been extremely cumbersome.

She and her colleagues are developing an assay involving antibodies specific for the product of the enzyme reaction. This enzyme-linked immunosorbent assay (ELISA) technology, says Palcic, is highly sensitive and amenable to automation.

The near-term focus of the research is the elucidation of how enzyme mediated changes correlate with and possibly determine the course of cancer and other diseases. Looking at the longer term, Palcic speculates that "if we are very fortunate, then inhibiting the enzyme may be a means of inhibiting metastasis."

A chemist by training, but one with a strong interest in biology, Palcic holds degrees from the University of Windsor and a PhD from the U of A. After post-doctoral work at Berkeley and Ohio State she was recruited by the Food Science department six years ago when it was looking for an enzymologist.

Palcic points out that the food industry is the largest industrial user of enzymes. They are employed in a number of food production processes, perhaps most notably cheesemaking, and in ancillary roles—meat tenderizers, for example.

While her own focus is basic research, Palcic finds that she has "benefitted enormously" from the emphasis on application amongst her departmental colleagues. "It's made me think about the broader industrial potential of enzymology," she says.



Molecular biologist Szalay with some of his glowing specimens.

Restoration of A Soil Ecosystem

David Chanasyk describes his involvement in land reclamation work as a "glorious opportunity to test the theories we hold dear."

Chanasyk is not a man who fits easily into any disciplinary cubbyhole. He's both a professional agronomist and a professional engineer; his appointment at the University of Alberta is split between the Departments of Agricultural Engineering and Soil Science.

The connecting link in Chanasyk's seemingly schizophrenic professional existence is his interest in the relationship between soil and water, a relationship he believes to be an integral one. "You can't really divorce soil from the water," he says.

The importance of that relationship is underlined by the early attempts made to reclaim land near Highvale, Alberta that had been strip mined for coal for use in Transalta's Highvale generating station, south of Lake Wabamun.

While the utility company carefully replaced the subsoil and then spread the retained topsoil over it, the reclaimed land proved unsuitable for farming: it would grow a healthy-enough crop early, but by September the land would be too wet to work and the crop could not be harvested, recalls Chanasyk, who was called in to study the effects of the agricultural management practices being used.

He found that the major problem was packing of the subsoil (mostly clay) by the heavy equipment used in the soil restoration. The hard-packed clay was proving a barrier both to the natural downward percolation of water and to plant roots, which could assist in the natural dispersion of moisture.

With Anne Naeth, a research associate who brings a plant science background to the work, Chanasyk found that current practices

(including a deep "ripping" of the subsoil once it is in place) have worked out well—in fact, the reclaimed land is now proving to be more productive than it was before the mining.

Chanasyk and Naeth have also worked at a number of other reclamation sites throughout the province and have found the work both challenging and rewarding. "Most of what we are learning is directly applicable to agriculture through the province," he says, noting also the satisfaction of seeing the soil ecosystem restored.

Towards a Tsetse Solution

Entomology professor Ronald Gooding attributes his interest in hybrid sterility in the tsetse fly to a general curiosity about evolutionary relationships between closely related species.

As an academic he's interested in learning about the genetic mechanisms which protect a species' genome (its genetic material) from invasion by genes of another species and the extent to which the genome of one species can incorporate genes from a closely related species?

But his interest in tsetse flies is not entirely academic: these insects spread sleeping sickness in humans and related diseases in livestock.

Some years ago Gooding, whose first degree ('57 BSc) is from the U of A, concluded that tsetse flies would be good candidates for genetic control and his subsequent studies have been carried out with that in mind.

At one point the goal seemed tantalisingly close. In 1977 Gooding discovered a genetic mutant fly with salmon-colored eyes (instead of the usual black) and later developed a breeding line with the salmon-colored eye as a genetic marker. He soon found that when salmon-eyed males mated with salmon-eyed females almost all offspring died too young to reproduce. (The gene was

only kept alive by breeding salmon-eyed males to black-eyed females with recessive salmon-eyed genes).

Here was a good possibility for genetic control: if sufficient salmon-eyed males were released they would introduce the mutant gene into the wild population, eventually depleting it through the inability of the mutants to produce viable offspring. Everything looked promising until tests that Gooding initiated showed that salmon-eyed mutants were extremely efficient transmitters of the parasitic protozoa which causes sleeping sickness; releasing them was clearly out.

Gooding is now pursuing another approach based on a maternally inherited sterility associated with the crossing of the tsetse fly subspecies *Glossina morsitans morsitans* and *Glossina morsitans centralis*. This sterility, says Gooding, appears to be a defence mechanism whereby each subspecies protects its genes from the other subspecies.

While this approach shows promise, Gooding says a great deal of testing is necessary to assess the practicality of using this cross to achieve widespread genetic control. But there's good news, he says: "In principle, it should be possible to create a line which will be unable to transmit trypanosomes."

Predicting Tree Growth

As a forest geneticist Bruce Dancik conducts basic research involving molecular biology and such techniques as DNA isolation and gene sequencing, but he's also involved in some research that is "basic" in a different sense.

"In a way it's a silly, simple thing," says the chair of the U of A's Forest Science department in reference to the work that he and colleagues Francis Yeh and Dick Pharis have been doing to predict the later growth performance of nursery seedlings. He explains that such seemingly "basic"

research on a question of such import to reforestation efforts has been largely neglected because of a widespread belief that it is simply impossible to predict how quickly trees will grow when they are mature on the basis of their behavior in the nursery.

The Alberta researchers decided to test that belief. It would have been impossibly slow work were they to have planted seed, observed the seedlings, made predictions and then waited 50 or 60 years to check the mature growth rate, so they took another approach. From around the world, as far away as Scandinavia and New Zealand, they obtained seed that had sat on back shelves for decades—seed from seed lots that had been used to grow stands of timber for which the later-life performance is now known.

"We found good correlation between seedling performance and later growth," says Dancik, whose research involved "blind" studies—he and his colleagues had no way of knowing whether the different seed samples had yielded slow, intermediate or fast growing mature trees until their predictions were made.

As it turned out, he says, the best performance indicators were the volume growth of the seedlings (an easy enough measurement in a mature tree but not so easy in seedlings—it was necessary to resort to tiny calibrated threads to measure their diameter) and the level of activity of growth hormones.

How does he explain the mistaken notion that nursery performance couldn't be related to later growth? Dancik speculates that some of the early studies were confounded by crowded nursery conditions which didn't allow the seedlings to express their potential. "And then maybe finding some exceptions caused people to throw away all of their results," he says.



Bar None: How It All Began

by Cy McAndrews, '50 BSc(Ag)

Bar None, the "Aggies Big Bash", has become an institution at the University of Alberta. It brings to mind parades, square dancing and watching the Aggies and Engineers fail, year after year, to pull off that slightly more clever stunt. Yet, besides all the fun and frivolity, what does Bar None mean? How did it all get started?

As we celebrate the 75th Anniversary of the Faculty of Agriculture and Forestry this summer, it seems an appropriate time to answer these questions. After much meditation and digging around, and with more than a little help from old friends and classmates, I was able to piece together the circumstances that led to the first Bar None way back (as my children would say) in the spring of 1948.

In the years following World War II, the University of Alberta housed an interesting and sometimes bewildering mix of returned men and newly graduated

teenagers. It was often difficult for students to find some common ground, even within small faculties.

The difference in backgrounds and experience did not discourage the Aggies, however, for as you may know, they are a naturally fun-loving species. Always a resourceful bunch, they organized field days, dances and social events.

One such event was described in *The Gateway* of 15 March 1946: "Denim decked dudes and gingham garbed gals relived the spirit of the old west to the rollicking rhythm provided by Frog Fraser and his Frontiersman. The Barn was never livelier, according to the management, and from where we stood we can well believe the statement. The Animal Hub men and House Eccers make pretty fair actors of the frontier days."

Needless to say, functions such as this were tremendously successful. The Aggies became a more cohesive, identifiable group and earned a reputation for being an outgoing bunch.

The divisions on campus, however, remained. There



Color photos
by Phil Schofield

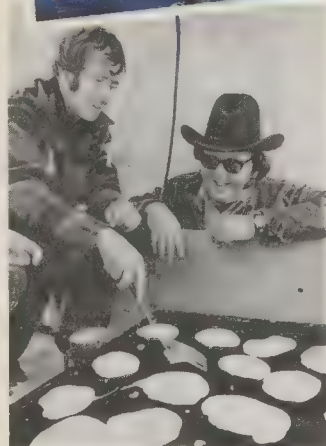
were of course the fraternity parties and the individual faculties had their own social events, but there existed a sense of separateness and, for the most part, groups kept to themselves. Furthermore, the division between the Aggies and Engineers grew even larger when the Aggies let

It's Bar None time! Top: A view of the dance floor from the rafters of the Universiade Pavilion. **Above:** During Bar None week the Aggies stand out from the crowds on campus.

pigs loose at the Engineer's Ball in the spring of 1947. Some will say that the "pig



Bar None is more than a dance. It's the culmination of a week of fun and celebration. **Top left:** Trying to stay aboard Twister. **Top right:** The Bar None Outfit stands ready for hitching on a crisp and cold campus morning. **Left:** Flipping flapjacks for a Bar None breakfast some time in the early 1970s.



incident", as it became known, marked the beginning of the now famous Ag/Engineer feud. Quite frankly, I think the animosity may have begun when a prehistoric Aggie had his first good crop run over by an Engineer on his first good invention —the wheel! It's a moot point now; suffice to say that the campus had its rivalries in 1948.

Many of the Aggies of the day had come from small, closely-knit rural communities and could not understand the concept of excluding *anyone*, even an Engineer, from a social function. It was that spirit of hospitality that prevailed one spring afternoon in 1948 when a group of Aggies got together to plan the upcoming Ag Club dance.

The North Lab, like many rooms on campus at that time, was usually on the cool side. But that afternoon, the atmosphere was hot with ideas. After much brainstorming and "creative discussion", they had it. That spring, the Ag Club would put on a dance that anyone could attend. They would Bar None.

This would be the first true "mixer" at the University of Alberta, and a brand-like logo, $\bar{o}$, would symbolize the event. With great excitement, the Aggies set to making a thousand or so stickers bearing the $\bar{o}$ motif and sticking them absolutely everywhere on campus. (Unfortunately, the ever-vigilant custodial staff were also everywhere on campus, and the stickers came down almost as quickly as they went up.) *The Gateway* publicized the event and curious onlookers in the rotunda of the Arts Building beheld the first Bar None square dance exhibition.

The promotion worked. On the evening of March 13, 1948, a sizeable crowd converged on the Drill Hall to see what the Aggies had in store. Some were quite surprised to be herded one-by-one through a poplar-pole branding chute by burly cowboys wielding

authentic branding irons.

They emerged in the midst of a good old-fashioned barn dance. The Hall was decorated with wheat and corn sheaves, and off in the corner stood the "Dirty Shame Saloon" where, for one thin dime, you could get a glass of non-alcoholic punch. (This, of course, was the "official" beverage of the evening.)

There were two orchestras and the party-goers enjoyed a series of square dances, reels, polkas, and other old-time dances. A further highlight of the evening was the "surprise entertainment" provided by members of the Ag Club.

I am reluctant to mention any specific names when describing the events of the first Bar None, as I would hate to leave out any of the hard-working Aggies. Nonetheless, it seems only just that the entertainment should be described by someone very close to the action —Lloyd Seath (Class of '50). Lloyd had the unenviable job of bringing up the rear of the unisex bovine featured in a mock bullfight.

Lloyd remembers, "At the Bar None where we performed, I recall holding on to Vance Molsberry's belt (inside the bull/cow) and readying myself for what was to come. We were wearing

shoe boxes for hooves and when Molsberry let out a roar, they flew off as we charged. I had no idea where we were going and we had lots of problems (me especially) as we turned to charge again.

"Marion, the matador, was to be bowing to the crowd, accepting the roses thrown to him by his girlfriend. It was Marion's intention, when we charged, to leap over us (he was quite athletic) but from accounts I received afterward (bear in mind that although I was present, being in the bull/cow, I was not an eye-witness) our charge was so sudden and so rapid that we almost destroyed Marion. He was, however, able to recover and with some difficulty, leap over us on our next charge.

"We then become passive and refused to be goaded into any further activity and finally lowered a paper bag from which protruded four carrots —he was a she!"

The evening was thoroughly enjoyed and the Bar None tradition began. We even made money; the secretary-treasurer of the Ag Club recalls that we cleared over \$200—at 35 cents a head, that's not bad!

Over the years the faces and the venues have changed, but the central theme of rural hospitality and fun has remained. Many readers will have their own memories of good times at Bar None over the years. Indeed, attending Bar None has become something like a rite of passage.

My own memories are of my classmates and contemporaries. They are old friends now and some are gone. Many became famous and all added a special something to agriculture wherever they went. Yet I sometimes prefer to think of them not as distinguished and accomplished agriculturists, but as that special group of kids back in the North Lab in the spring of 1948—kids who wanted to enjoy life and to Bar None.

Class Notes

'28

Effie Harper (Slonaker), BEd, and **William Harper**, BSc(Ag) live in a seniors-oriented apartment in White Rock, B.C. They write that they both are reasonably healthy and are enjoying many friends and quite a lot of activity — "albeit at a greatly reduced speed."

Gladys Fulford (Smith), BA, who now lives in St. Lambert, Quebec, reports that she has been very involved in volunteer activities since her retirement from federal government service and has run the boutique in the local museum for the past five years. "Would like to hear more of members of Class '28."

'35

Hubert Dumont, MD, and his wife **Margaret** recently celebrated their golden wedding anniversary in Vancouver.

'41

Ian Bain, BSc, and **Claudia Bain (Barker)**, '42 BA, now live in Vancouver. He is a retired geologist; she, a retired teacher.

'42

Albert Hall, BSc(Eng), is the author of *Star of the Cheechikois* a fictional work celebrating the twentieth anniversary of the Canadian Flag. Copies of the book are available from Gai-Garet Design and Publication, Box 424, Carp, Ontario.

'43

Carson Templeton, BSc(Eng), has been awarded the Canadian Council of Professional Engineers Gold Medal for 1989. His efforts to insist that engineers' works and ways be not only adequate but environmentally and socially acceptable were cited.

'48

Agnes Hayes (MacKenzie), BSc, recently retired from her position as clinical chemist at Grey Nuns Hospital, Edmonton and is moving to B.C. with her husband. They plan to live in an Okanagan cottage in the summer and in Kelowna in the winter.

'51

Jack Cookson, BSc(Ag), a former

cabinet minister in the Lougheed government, is now retired and living near Lacombe, Alberta, where he is enjoying farm activities and selling real estate.

'53

Ronald Southern, BSc, the president and CEO of ATCO Ltd. of Calgary was invested as a member of the Order of the British Empire at a ceremony held at Buckingham Palace in March. His companies have had a long relationship with British businesses.

John Pollock, BEd, '52 Dip(Ed), a former deputy superintendent of the Red Deer Public School District is now retired and enjoying travel and community activities.

'54

Brian Withers, BSc(Eng), who took early retirement from his position as vice-president, commercial operations and business development for NOVA/Polysar, has begun Innovative Executive Service to provide part-time help in marketing/purchasing/strategy development.

'56

Olly Loza Kochan, BSc(Pharm), who has worked with the Alberta Pharmaceutical Association since 1982, is currently the Association's deputy registrar.

Ronald Wensel, MD, '54 BSc, has been appointed vice-president (medical affairs) by the U of A Hospitals.

Ralph Evans, BSc(Eng), has been named to the newly-created position of executive manager, operations by the Alberta Energy Resources Conservation Board.

'57

Shirley MacArthur (Mohler), Dip(Nu), recently received the Canada Volunteer Award Certificate of Merit from the Canadian Department of Health and Welfare.

Harry Schaefer, BCom, vice-chairman of the board and chief financial officer for Transalta Utilities was recently named a fellow of the Institute of Chartered Accountants of Alberta.

'58

Donald MacLeod, BSc(Eng), who earned a law degree from

UBC in 1961 and has been practising law in Calgary, was recently appointed to the Alberta Court of Queen's Bench.

TW Fraser Russell, MSc, '56 BSc(Eng), chair of the Department of Chemical Engineering at the University of Delaware, was recently elected to the National Academy of Engineering in the U.S.

'60

Barrie Sanford Grief, MD, is currently consultant to the Harvard University Health Services and visiting professor of occupational psychiatry at the Institute of Living in Hartford, Connecticut. Now a private practitioner and consultant to numerous organizations, he is the author of *Tradeoffs*, a book based on a course he developed during his tenure (1969 to 1984) as psychiatrist to the Harvard Business School. The course, entitled the "Executive Family", dealt with the relationship of self, family and work life. He is also co-author of *The Psychosocial Impact of Job Loss*, a recent release from American Psychiatric Press, Inc. **Wilfred Fitzpatrick**, MEd, of Edmonton has been finding time for travel and local volunteer work since his retirement as registrar for Alberta Education. **James Stanford**, BSc(Eng), president of Petro-Canada Resources from 1982 to 1990, has been named president and CEO of Petro-Canada. **William Pidruchney**, LLB, '56 BA, accepted appointment as vice-president of listings for the Vancouver Stock Exchange in September 1989. A few months earlier he had received a Citation for Citizenship presented at the Parliament Buildings, Ottawa.

'61

Barry Irvine, BSc(Eng), is president of Tilbury Cement Ltd. of Vancouver.

'63

Maurice Lamothe, BSc(Eng), who resides in Georgetown, Ontario, is president of his own safety consulting company, M.A. Lamothe & Associates Inc., which assists companies to obtain CSA and foreign safety approvals.

Allan Olson, BSc(Eng), has been named chairman and CEO of Banister Continental Ltd. **Frederick Lamb**, BCom, has been appointed vice-president

and general manager of Edendorough Ltd. a manufacturer and distributor of giftware based in Elmira, Ontario.

'64

George Lackonick, BSc(Eng), a colonel in the Canadian Forces who holds MBA and MPA degrees from Rutgers and Queen's Universities respectively, was recently transferred from NATO headquarters in Brussels to a new assignment as Canadian Forces attaché in Seoul, Korea, where he serves as Canadian member of the UN Command military armistice commission

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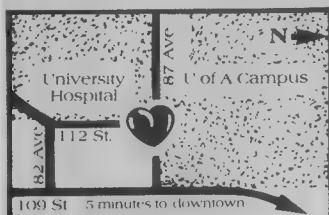
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advisory group.
John Ferguson, BCom, president and CEO of Princeton Developments Ltd., has been appointed to the board of directors of the Royal Bank of Canada.
Robert Klose, BMus, '89 BEd, is a professor of music at the U of Saskatchewan. An accomplished violinist, he has performed in Europe, Canada and the U.S., published extensively, and is now conductor of the Corelli Strings Chamber Orchestra.

'65

Joe Sparling, MSc, '61 BSc(Eng), is an instructor of instrumentation at the Northern Alberta Institute of Technology.

'66

Malcolm Bibby, PhD, '61 BSc, '63 MSc, has been appointed dean of engineering at Carleton U, Ottawa.
Bob Thompson, BDiv, '59 BA, a United Church minister in Saskatoon, has been elected president of the Saskatchewan School Trustees Association.

'67

Kenneth Foster, PhD, '61 BSc,

has been named director of research and development (land) by the Canadian Department of National Defence.

'68

John Eisner, DDS, recently accepted a one-year posting as visiting professor of dental education and informatics at the School of Dental Medicine, State U of New York at Buffalo.
Margaret Topping (Feist), MEd, '67 BEd, an educational consultant living in Calgary, serves on the national executive of the Canadian College of Teachers.
Walter Snihurowych, MD, '65 BSc, lives in Prince, Utah and conducts a private practice in urology.

'69

David Dahle, MA, '67 BA, a professor of classics at Camrose Lutheran College, has been named associate dean by the college.
Kenneth Milne, PhD, reports from Quinns Rocks, Western Australia that he is now semi-retired.
Marlis Bartscher, BEd, writes that she lives in rural Nova Scotia with her family of Newfoundland dogs. A social worker in the mental health field, she recently earned an MEd in counselling attending Acadia U part-time.

'70

Shelagh Parsons, BA, serves as minister of Southwoods United Church in the Millwoods area of Edmonton.
Bill Shaw, MA, is the new director of the Red Deer Planning Commission.

Patricia Newton (Shannon), MEd, '66 BEd, is associate director of the Calgary Regional Office of Education, where she is responsible for program, school system monitoring and evaluation. An executive member of the Institute of Gender Research at the U of Calgary, she was recently elected to the U of C Senate.

Margaret Steinhauer, BEd, reports that she is retired and enjoying the exploits of her daughters, both U of A grads. One daughter, **Sheila Mozekko (Steinhauer)**, '73 BSc, '77 MBA, is a sessional lecturer in the U of A business school; the other, **Elizabeth Steinhauer**, '77 BSc, is a physician in Hobbema, Alberta.

'71

Helen Campbell (Skoworoako), '71 BEd, and **Dwight Campbell**, '70 BSc(Eng), and their two daughters recently moved to Virginia where Dwight is an adviser for the planning and producing department of Mobil Oil's head office. They report that they are enjoying living next to Washington, D.C. with all that it has to offer but miss Alberta where there is less traffic and fewer people.

'72

Desmond Berghofer, PhD, '70 MEd, of Vancouver is president of Creative Learning International.
Allen Germain, BSc(Eng), has his own practice as a consulting engineer specializing in industrial energy conservation. He and his wife and two children live in Burlington, Ontario.
Louise Radomsky, BSc(Nu), '65 Dip(Nu), owner of Schulz and Radomsky, a mustard processing company, has been appointed a member of the Alberta Agricultural Products Marketing Council.
Roland Pomeroy, PhD, a faculty member in the chemistry department at Simon Fraser U, was a recent recipient of an Excellence in Teaching Award.
Harry Lillo, BSc(Eng), has been appointed manager of the Environment Protection Department of the Energy Resources Conservation Board.
Michael Ross, BCom, has been admitted to partnership in the Ernst & Young accounting and consulting firm in Edmonton.

'73

Gary Pearson, BSc, is farming near Delia, Alberta.
Robert Renwick, BLS, is a teacher-librarian at River East Collegiate Winnipeg and president (1989-90) of the Manitoba School Library Audio Visual Association.
Harry Goldberg, BA, has returned to Alberta from Victoria, where he served for ten years as B.C.'s chief electoral officer, to become the executive director of the Alberta Human Rights Commission.

'74

Oleh Lukomskyj, MA, '69 BA, is manager of the population, research and information systems section in Canberra for the

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Ronald Gamache, BEd, whose address is Heriot Bay, B.C. is program director for Camp Homewood, a year-round inter-denominational Christian camp.

Alexandra Chernenko Rudnytsky, MA, has recently had her second book published. The monograph, *Expressions in the Works of Vasily Stepanyuk* (Sucasnist, New York-Munich), provides an interpretation of the prose of this classic Ukrainian writer. She is credited with originating a new understanding of Stepanyuk's writings by demonstrating in his works the same characteristic features of expressionism that were shared by other European writers at the turn of the 20th century.

Garry Fotheringham, BCom, is an inspector in the RCMP's commercial crime section in Calgary.

Gerard Dupont, BCom, recently accepted a position as controller of Nepean Hydro.

Terry Chapman, BCom, is manager, financial planning for B.C. Hydro.

Gerry Protti, BA, was named executive director of the Independent Petroleum Association of Canada earlier this year.

Marnie Giles (Harrison), BPE, is married with two children and teaching elementary behavior adaptation children for the Calgary Board of Education.

LLB, '71 BA, has been admitted to partnership in the Edmonton law firm Duncan & Craig.

Annie Marie Foster, BEd, is the modern language department head at Strathcona Composite High School in Edmonton.

Gwen Ewan, MA, '68 BA, is a therapist in the outpatient psychiatry program at Nanaimo Hospital in B.C. and teaches at various colleges.

'76

Oluwole Adegbenro, MEng, is at present a senior lecturer at the U of Lagos, Nigeria, where he returned after taking the Doctor of Engineering degree at Tohoku U in Japan.

Heather Bethune, BCom, was

recently awarded the Canadian Institute Medal of Achievement for earning the highest marks across Canada in the CHFC course of studies. She is president of her own company, Financial Dynamics, in Edmonton.

Florence Purves, BEd, follows the sun to Arizona in the winter and returns to Alberta in the summer now that she is retired.

Terrance Richardson, BA(Special), '74 BA, and family recently moved from Saskatoon, where he was a Lutheran pastor, to Winnipeg, where he serves as chaplain at Rockwood Institution, a federal penitentiary.

Marilyn Gillespie, BA, '71 BEd, is a Roman Catholic sister who serves the Church as chaplain at Joyceville Penitentiary near Kingston, Ontario.

Gwynn Butler (Penny), BA(RecAdmin), and **Rick Butler**, '77 BA(RecAdmin), live in Whitehorse, Yukon. He is assistant deputy minister of municipal and community affairs for the Yukon government; Gwynn is settling into motherhood after extensive travel abroad.

Robert Phillips, LLB, '71 BSc(Eng), has joined the Calgary office of Blake, Cassels & Graydon, one of Canada's largest law firms.

'77

Debbie Meronek, BSc(Pharm), was married in 1989 and now lives in Toronto, where she has a family practice in medicine.

Russ Kupin, MBA, '70 BSc(Eng), recently joined Alberta and Southern Gas Co. Ltd. as senior vice-president.

Christine van Roodelaar, BA, has returned from almost a year in Singapore and is now assistant to the dean at the U of A Faculty of Extension.

Wanda Lowe-Wickens, BEd, who lives in Welland, Ontario, is completing her MSc in health and physical education through the U of Montana. She is now home with two small children and a member of the University Women's Club of St. Catherine's.

Richard Brekke, BSc(Eng), and **Debra Brekke (Hellings)**, '78 BSc(HEC), live in Calgary. He is an engineering supervisor for Omega Hydrocarbons Ltd. She is at home with their two boys.

John Vos, BSc(Eng), was recently appointed operations manager for the City of Kelowna, B.C.

In Memoriam

The Alumni Association extends its condolences to the families and friends of the following:

Ewart William Stutchbury '22 BA, '24 LLB March 1990/Barrhead, Alberta

Margaret Barr Bleazard '23 BSc(Pharm) January 1990/London, Ontario

John Raymond Peirce '24 BSc(Ag) March 1990/Edmonton

Frederick Paget Irwin '27 BSc March 1990/Toronto

John Charles Allen '28 BSc(Ag) November 1989

Alan Stuart Galbraith '28 BSc January 1990/New Jersey

Isobel Mary Griswold '28 BA April 1990

Edward Frederick Hunter '29 BCom May 1990/Edmonton

Eleanor Robson Caton '32 BA January 1990

Frederick James Ennis '32 BSc April 1990/Burnaby, B.C.

Hugh Matthew Thompson '33 BSc(Ag) April 1990

Henry Stuart Patterson '37 LLB March 1990/Calgary

Kenwood Green '38 BSc, '45 MD February 1990/New Westminster, B.C.

Dorothy Jessie Caldwell '39 BA, '40 Dip(Ed) April 1990/Viking, Alberta

Sadie Duggan '39 BSc(Nu) April 1990

Robert George Wallace '39 BA, '46 BEd March 1990/Calgary

Frederick Glenn Fox '40 BSc, '42 MSc February 1990

Douglas Charles Hutchinson '40 BSc(Eng)

Albert Edward Caldwell '41 MD January 1990

Julius Guild '43 BSc, '46 MD April 1990/Edmonton

Kathleen King '43 Dip(Pharm) March 1990/Lethbridge, Alberta

Mary Nasmith Stevens (Corbett) '44 BSc(HEC) March 1990/Pullman, Washington

Leonara Ethel Wilson '44 BCom March 1990

Wallace Beverly McConnell '46 BSc, '47 MSc March 1990

Harold Boswell Cassan '47 BEd May 1990/Hope, B.C.

Margaret Annie Henderson '47 BSc February 1990

Donald Victor Smiley '47 BEd, '48 MEd, '51 MA April 1990/Toronto

Lois Beth Bain '49 BCom March 1990/Toronto

John Louis Lach '50 BSc(Pharm) March 1990/Iowa City, Iowa

Jean A Hamilton '51 Dip(Nu) February 1990/Edmonton

John Vernon Kirby '51 BSc(Pharm) May 1990/Priddis, Alberta

John Donald McDonald '51 BSc(Eng) March 1990

Hugh Walter Goodman '53 BSc November 1986/Calgary

Gloria Elizabeth Metzger (Komarnisky) '53 BEd April 1990

Nicholas Samoil '54 Dip(Ed) May 1990/Edmonton

Peter Klufas '55 BEd April 1990/Smoky Lake, Alberta

Stanley Peter Dmytrash '57 BEd April 1989

Josephine Carolyn Richardson '57 Dip (PHNu) May 1990/Edmonton

Eugene Basil Zaruby '57 BA July 1989/Delta, B.C.

James Richard Hope '59 BSc(Eng) April 1990/Edmonton

Norman Werner '59 BSc(Eng) April 1990

Victor Lawrence Humeniuk '61 BSc(Eng) April 1990/Sarnia,

Ontario

Elfreda Eltheo Peirce '61 BEd, '65 Dip(Ed), '66 Ed(Dip) March 1990/Edmonton

Heather Jean Kulak '63 BSc March 1990/Calgary

Elizabeth Jean Thomas '63 BEd November 1989/Victoria

Dennis Howard O'Donnell '64 BPE April 1990/Edmonton

Elva M. Rowland '64 BA

Marian Panar '65 BA, '76 Dip(Ed) April 1990/Edmonton

Donald Harold Boyd '70 BCom April 1990/Edmonton

Mary Carolyn Klimchuk '70 BEd, '87 MEd March 1990

Elizabeth Frances Rowand '70 Dip(OT) May 1990/Edmonton

Allan Jerome Lambertus '71 BSc April 1990/Edmonton

Lillian Charlotte Dinney '72 BEd April 1990/Edmonton

Marilyn Hook '72 Dip(Nu) March 1990

Alan John Matthews '72 BSc(Eng) March 1990/Edmonton

John Trofimuk '73 BA April 1990/Edmonton

Olivia Anna Hutchinson '74 BEd May 1990/Sherwood Park, Alberta

Robin Douglas Coutts '75 BA April 1990/Edmonton

Elizabeth Marjorie Ontkian '75 BEd March 1990/St. Albert, Alberta

Ellen Louise Bell '76 BA May 1990/Kamloops, B.C.

John Ross Vant '80 LLD(Hon) March 1990/Edmonton

Janis Mary Hudson '84 LLB April 1990

Barbara Louise Yoder '86 BEd April 1990/Barrhead, Alberta

Darren Harry Yasheyko Jr '88 BSc(Ag) January 1989/Dominican Republic

'78

Leigh Ann Seller, BSc(HEc), recently moved from Kamloops to Vancouver. She is working for the B.C. Ministry of Social Services and Housing on developing standards of social work practice for the province.

Arun Kumar, MSc, is a supervisor in charge of software development for telephone switching equipment at Siemens Communications Systems, Boca Raton, Florida.

Heather Johnston, BFA, earned a master's degree in architecture UCLA in 1987 and is establishing her own practice in Los Angeles. Engaged to be married to a fellow architect, she writes that she would be happy to hear from old friends.

Brian King, BCom, is manager of personal banking at the Royal Bank of Canada in Lethbridge.

Eric Upton, BEd, is back in Edmonton as CBC Television's regional sales manager.

Lawrence Beaudry, MEd, '71 BEd, of Edmonton has been elected a director of Western Management Consultants.

the 1990 recipient of the U of A Faculty of Business's Canadian Business Leader Award.

Lise Belliveau, BEd, is completing an MEd at McGill U. She is a teacher training instructor working with James Bay Cree Teachers for McGill and U de Québec à Chicoutimi, is a consultant to the James Bay Cree School, and is a part-time English instructor for Commission Scolaire La Valière, Saint-Félicien, where she now lives with her husband and infant daughter.

Rick Hollingworth, BCom, '73 BA, and **Maureen Hollingworth (Hamill)**, '71 BA, are living in Copenhagen, Denmark. They will return to their home in Victoria in 1991 when Rick completes his two year position as accounting officer for UNICEF. **Donald Mayall**, BEd, is teaching at Jack James School, Calgary.

Peter Piening, BA, is living in Poste-Rouge, Quebec where he is teaching English as a second language while attempting to learn French. "It is a marvelous experience . . ."

the Vancouver area and is pursuing a career as art director for feature films.

Linda Grenke, BSc(OT), '79 Dip(RehabMed), is an occupational therapist at the regional hospital in Penticton, B.C.

Gunars Plumite, BA, has joined the City of Edmonton police department.

Kelly Paukszt, BEd, is office manager for Golden Star Resources, Edmonton.

Douglas Walls, BEd, lives in Wetaskiwin, Alberta and teaches at Ermineskin Kindergarten, Hobbema.

'81

Marc Monette, BSc(Forest), earned a degree in landscape architecture from UBC and now works for the National Capital Commission in Ottawa.

Robert Hillis, MD, '79 BMS, is a regional medical officer for CN. Based in Edmonton, he is responsible for CN's medical and health program for the Mountain Region, which includes Alberta and B.C.

Michael O'Hara, BEd, '85 Dip(Ed), is a full-time teacher for the County of Parkland school board in Alberta and pursuing a master's degree in

music education through summer study at the U of Oregon. **Erman Evgin**, PhD, is an assistant professor of civil engineering at the U of Ottawa.

Donald McLaughlin, LLB, '78 BEd, has joined the Edmonton office of the law firm Field & Field as an associate.

'82

Timothy Talbott, BSc(Eng), is a project manager for Bird Construction Co. Ltd. of Edmonton. **Lilian Hill**, BSc(Eng), completed a master's degree in adult education at the Ontario Institute for Studies in Education and is now an instructor with the Faculty of Continuing Education at the U of Calgary.

Don Odynski, BEd, is living in the Kingdom of Saudi Arabia where he works for Saudi Aramco. He is the training coordinator for the Terminal Digital Unit.

Robert Shouldice, LLB, '78 BCom, has become a partner in the Vancouver law firm of Ladner Downs.

Mary Lea McAnally, BCom, and **Britt Pasloske**, '89 PhD, were married in 1989 and now live in Stanford, California. She is doing a PhD in accounting at Stanford U; he is doing post doctoral work in malaria.

Cathy Campbell, PhD, '80 MEd, an associate professor of education at the U of Lethbridge, serves her faculty as assistant dean, field experience.

Peter Huang, MD, '82 BMS, and **Joan Huang (Knight)**, '83 MD, '81 BMS, and their son live in Calgary. She is a family physician; Peter is an ophthalmologist with a special interest in corneal diseases.

Jeffrey Borge, BSc(MedLabSci), completed a PhD at the U of Toronto and is now doing

'79

Max Ward, LLD (Honorary), is

'80

John Willett, BFA, now lives in

A Message From The Ministers

On behalf of Alberta Agriculture, we are very pleased to offer congratulations to the Faculty of Agriculture and Forestry, University of Alberta, on the occasion of its 75th anniversary.

The paths of the Alberta Department of Agriculture and the Faculty of Agriculture and Forestry have been closely linked during the past 75 years. University of Alberta Agriculture graduates are well represented in the department's roster of dedicated professional agriculturists. Our joint endeavours in research and other areas have been of tremendous benefit to the agricultural community we serve together.

The Faculty of Agriculture and Forestry and Alberta Agriculture share a long history of rewarding co-operative effort in agricultural development. We are confident that our mutually-supportive work will continue to promote progress in agricultural practice and strength in Alberta's rural community for many years to come.

From everyone at Alberta Agriculture, all the best to the faculty, staff and students of the University of Alberta's Faculty of Agriculture and Forestry. We wish you continued success in the future.

Alberta
AGRICULTURE



Ernie Isley
Minister



Shirley McClellan
Associate Minister

Librarians in Alternative Careers

I am conducting a Canadian study on the movement of librarians toward alternative career paths. If you are a librarian working in a non-library setting and you would like to participate, please contact:

Prof. M. Giguère
Library Studies Program
Concordia University
7079 Terrebonne Ave.
Montreal, Quebec
HAB 1E1
(514) 848-2525

post doctoral work at the U of Calgary.

'83

Catherine Stout (Yanchar), BEd, and **Curt Stout** '86 BSc(Eng) were married last July and live in Edmonton, where he is completing a master's degree and she is teaching. (*Catherine's maiden name was spelled incorrectly last issue.*)

Charles Lau, BSc(Eng), lives in Red Deer and works as a process engineer at the Novacor/AGEC ethylene plant.

Joseph Kong, BSc, specializes in industrial automation as a software analyst for the Saskatchewan Wheat Pool.

Michelle Scott, BCom, completed an MBA at the U of Western Ontario last year.

Nancy Grouette, BSc(Nu), completed an MSN degree at UBC and now coordinates the chemical dependency program at University Hospital-Shaughnessy Site, Vancouver.

John Kosolowski, LLB, '80 BA, has been admitted to partnership in the Edmonton law firm Duncan & Craig.

Shafiq Amlani, BSc, '86 Cert(Sc), a systems analyst with K Mart Canada, is currently working on a Unix System that is to be installed in every K Mart store in Canada.

Mandana Hovesgaard (Zarrehparvar), BA, lives in Herlev, Denmark. After five years as an interpreter with the Danish Refugee Council, she is returning to university to study psychology.

Jasper von Meerheimb, MFA, '80 BA, works for Walt Disney Imagineering as a show set designer. "We design and produce ride attractions for the Disney Theme Parks, in California, Florida and Tokyo," he reports.

Randall Blumer, BSc(Eng), and **Beverly Blumer (McIntyre)**, '82 BCom, and their two sons live in New Brunswick. A lieutenant in the Canadian Forces, he is a maintenance appraisal team officer for the Canadian Patrol Frigate Project.

'84

Bruce Collingwood, LLB, '75 BSc, '76 Dip(Ed), and **Darcy Readman**, LLB, have been admitted to partnership in the Edmonton law firm Duncan & Craig.

Alison Roppel, BA, who was married in 1989, is secretary to the Edmonton Concert Hall

Foundation.

Nick Trovato, MEng, '79 BSc(Eng), has been appointed a principal of the consulting engineering firm Read Jones Christoffersen.

David Salmon, BSc, earned a PhD in chemistry in Berkeley, California and now works as a research chemist for Rohm and Haas, Bristol, Pennsylvania.

Terrence Warner, BA, has joined the Alberta law firm Cook Duke Cox as an associate. **Larry Hawkeye**, LLB, '74 BSc, '79 MSc, has joined the Edmonton law firm Hattersley and Company.

'85

Stephen Marsh, BCom, and **Catherine Marsh (Deshaies)**, '84 BSc(Nu), now live in Calgary. Stephen, who earned an MBA at UBC, is a systems analyst for Shell Canada. Catherine is at home with their son.

Gary Ramey, PhD, is director of student services at the Lunenburg campus of Nova Scotia Community College, Bridgewater. He and his wife recently celebrated the birth of their second child.

Brenda Rowntree (Brechtin), BEd, and **Carey Rowntree**, BEd, live and teach in Lethbridge.

Carey teaches at Winston Churchill High School and coaches its football team. Brenda substitute teaches, teaches homebound students and does math diagnostic testing for the Lethbridge School District in southern Alberta.

Donna Allan (Johnston), PhD, '73 BEd, '80 MEd, who has served Red Deer College as academic vice-president since 1985, will become president of Lethbridge Community College on 1 July 1990.

Glenda Simms, PhD, '74 BEd, '76 MEd, who calls herself a "womanist", has been named president of the Canadian Advisory Council on the Status of Women.

Robert Hewko, BCom, reports that he is "on a six-month tour of the South Pacific to seek fame and fortune" after attaining his CA designation last year.

Margot Reiffenstein, BA, is working as the divisional secretary of motor vehicles for the Government of the Northwest Territories.

Monica Talaga, BA, having completed a law degree at the U of Ottawa, is completing her articles with the Ottawa firm Wilson Monaghan.



Glenda Simms '85 PhD

Peter Achleitner, MEd, '79 BEd, is currently enjoying a two-year assignment as training officer on a CIDA water resources development project in Timor (Indonesia).

Paul Adams, BA, is an audit senior for the accounting firm Coopers & Lybrand in Denver, Colorado.

Darlene Blischak, BEd, who taught for three years in the Lloydminster area, has returned to Edmonton to work with adults in the field of rehabilitation.

Dwayne Schulz, BEd, writes from Kelowna, B.C. that he has been teaching in two different Christian schools for five years. "I love it!"

Thomas Kalantar, BSc, received a PhD from MIT earlier this year for work in synthetic organic chemistry.

Doug Klem, BCom, and his wife and son are in Melbourne, Australia where he is on a two-year term with KPMG Peat Marwick Chartered Accountants.

Diana Harrison, BCom, worked for VIA Rail in Montreal for three years before joining the RCMP in June 1989.

'86

Barbara Slavin (Johnstone), BCom, lives in Calgary, where she is the regional coordinator with Canada Trust.

Douglas Laurence, BSc(Eng), is an engineer with Ford at the motor company's St. Thomas assembly plant.

Susan Sculthorp (Waldron), BSc(OT), has moved to Vancouver and works as an occupational therapist at Royal Columbian Hospital. "Would like to say hello to all my colleagues at

EGH/GNH."

Janet Dubord, BSc, is in the second year of medical studies at the U of A.

John Bulmer, BSc(AgEng), recently moved to Peace River as district engineer with Alberta Environment.

Michael McEvoy, MSc, '78 BSc(Ag), works for the Farm Credit Corporation in Ottawa as a research officer in farm management. Previously he had been a visiting assistant professor at the U of A rural economy department.

Patricia Mazurek, BEd, teaches at Niton Central School in Alberta's Yellowhead School Division.

Victor Levson, MSc, is a geologist for BC Mines in Victoria and is finishing his PhD thesis in quaternary geology.

Frank Monaghan, LLB, '79 BA, has joined the Alberta law firm Cook Duke Cox as an associate.

'87

George Richardson, MD, will enter his third year of a general pathology residency at U of Ottawa this summer.

Steven Knudsen, MSc, '84 BSc(Eng), and **Katherine Crerar**, BSc(Eng), are engaged to be married this summer. He is working on his doctorate in electrical engineering at the U of Calgary.

Brian Wruk, BCom, works with AGT as a product manager for business network services.

Joseph Koech, MEd, is senior assistant registrar at Moi U in Kenya.

Darcia Hansen (Haydey), BSc(Pharm), has been working in retail pharmacy since graduation, briefly in Peace River, now in Edmonton.

Jane Pickard, MNU, assumed the position of vice-president, nursing at Windsor Western Hospital in Ontario in January.

Cynthia Millar (Wagenseil), MBA, '85 BEd, travels to all parts of Alberta in her position as product manager for AGT.

Floyd Hodgins, BA, reports that he has his own company in the renovation business in Edmonton and is doing well. "Clean shaven keeps me anonymous."

Claude Dufresne, PhD, did post doctoral studies at Arizona State U and is now a senior research chemist with Merck Sharp and Dohme in New Jersey.

Anne McMillan, MVA, is undertaking a four-year research program at Tokyo National U of Fine Arts and Music with the

help of a Japanese Government (Mombusho) Scholarship. **Todd Mitzak**, BA, has had a job transfer to Toronto with Canadian Airlines.

'88

Christine Leonard, BA, completed an MA at the U of Toronto and is now a senior research assistant at the Addiction Research Foundation, Toronto.

Darolyn Black (Smiley), BSc(OT), who was married late last year, now lives near Coronation, Alberta and works part-time for the town hospital and part-time for the local health unit.

Theresa Feth, BSc(HEC), the coordinator of the Calgary Community Support Services for Seniors, is developing a transportation project for frail elderly, using volunteers.

Steven Phipps, LLB, recently joined the Edmonton law firm Beresh DePoe & Cunningham. **Shannon Tober**, BSc(Eng), is a process engineer for a fertilizer plantsite manufacturer in Medicine Hat, Alberta.

Sally Navis (Boonstra), BEd, was married in December and

now lives and teaches in Duncan, B.C.

Leslie Reinke, BSc(Eng), and **Kerri Janzen-Reinke**, BSc(Nu), moved to Gloucester, Ontario, where at last report Leslie was employed in research and development for Transport Canada and Kerri was seeking employment in nursing-obstetrics.

Roop Jain, PhD, '85 MEng, is an associate professor teaching electronics courses at the BITS technical institute in the Indian state of Rajasthan. He has also participated in the development and teaching of a master's program in microelectronics at the institute.

Gerry Shand, BSc(Eng), who worked at the Microwave Research Lab at the U of A campus and then as a maintenance electrical engineer for Quintette Coal in B.C., is now employed at Bantrel Inc. in Calgary as an electrical engineer.

Bill Page, LLB, '75 MBA, and **Patricia Page (Gullason)**, '73 BEd, live in Edmonton where she teaches grade two and he works as a lawyer (Oglivie & Company) and as a management consultant (Page-Jacobsen Consultants).

Carol Larsen (Kolodinsky), BSc(OT), who was married last year, works as an occupational therapist at the Fanning Centre in Calgary.

Sripapa Sroypan, PhD, is a supervisor in charge of curriculum with additional responsibility for evaluating the teaching of secondary school teachers at Lamson School in Bangkok, Thailand.

Marguerite Storbo, LLB, is an associate in the Vancouver law firm Murchison, Thomson & Clarke.

Leah Wintermute, LLB, has joined the Edmonton law firm Field & Field as an associate.

Dev Chankasingh, LLB, '84 BA, is an associate with the Alberta law firm Cook Duke Cox.

'89

Carrie Erdmann (Mannix), BEd, and her husband live on a farm near New Sarepta, Alberta, from which she commutes to her teaching job in Calmar.

Debkumar Rakshit, MSc, is a staff engineer for Hamilton Gear, a Toronto based gear manufacturer.

Jane Taylor (Clarke), PhD, '82

MSc, of Edmonton and **Leanne Squair**, '87 MSc, of Calgary have formed Proactive Consulting, an educational service company dedicated to "promoting physically active lifestyles for special populations."

Wanda Barth, BPE, who gave birth to a daughter last fall, is continuing work towards a BSc(PT) degree at the U of A. **Catherine Dunik (Fergusson)**, BA, and **Brian Dunik**, BSc, who have their own pharmacy in B.C., recently took an Australian holiday.

Janice Tomlinson, PhD, resides in Ancaster, Ontario and serves as a psychologist with the Hamilton Board of Education and at EC Drury School for the Deaf.

Hugh Moncrieff, BA, living in Willowdale, Ontario, is a disability income specialist with Great West Life Assurance.

Kori Kirkwood, BEd, '87 BA, is living and teaching in Palm Springs and loving it.

Ron Glen, BA, does research and public relations work in Ottawa for Edmonton West MP Murray Dorin.

Rodney Reynar, BSc(Ag), is in Bangladesh working as an agronomist with the Mennonite Central Committee.

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Name and Address _____

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 Name of Spouse/Guest _____

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Please send me tickets for the following events (indicate number):

- _____ Friday Reception (Classes to '50) \$10/person
- _____ Grazing Party (Classes '51 to '89) \$15/person
- _____ Breakfast at Earl's \$7/person
- _____ Homecoming Luncheon \$14/person
- _____ Gala Dinner and Dance \$35/person

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I/We plan to take part in the following free events (indicate number):

- _____ 1990 Annual General Meeting
- _____ Campus Tours
- _____ Super Saturday Lectures
- _____ Arts Faculty Drop-In Centre
- _____ President's Brunch ('25, '30 and '40 grads only)

I would like to help organize a reunion of (class or other group). _____

Super Saturday Returns

Saturday

Breakfast at Earl's

Begin the day at the restaurant that is "a campus legend in its own time."

CAMPUS EARL'S / 8:30 a.m. to 9:30 a.m.

Campus Tours

See today's campus with student guides.

LEAVING FROM EARL'S / 9:30 a.m. to 10:30 a.m.

Super Saturday Lectures

Return to the classroom for stimulating 50-minute lectures on fascinating subjects by some of the University's best known professors.

BUSINESS BUILDING / 10:00 a.m. to 4:00 p.m.

Arts Drop in Centre

Visit Dean Clements and her colleagues in the Faculty of Arts.

6-40 HUMANITIES CENTRE / 2:00 p.m. to 4:00 p.m.

Saturday Luncheon

Lunch and a great view.

FACULTY CLUB / 12:00 noon to 1:30 p.m.

Gala Dinner and Dance

Featuring fine dining, noted humorist Merv Huston and dancing to the mellow sound of the Golden Altos.

WESTIN HOTEL / 6:30 p.m. to 1:00 a.m.

Sunday

President's Brunch

President Davenport hosts graduates from the Classes of 1925, 1930, and 1940.

MAYFAIR GOLF & COUNTRY CLUB / 11:00 a.m.

Thursday

Alumni Association Annual General Meeting

Alumni are welcome but must pre-register.

UNIVERSITY HALL / 5:30 p.m. to 7:00 p.m.

Friday

Opening Reception for 1922 to 1950 Classes

Visit with classmates of years gone by.

FACULTY CLUB / 7:00 p.m. to 9:00 p.m.

Grazing Party for 1951 to 1989 Classes

Mingle with friends and feast on fabulous hors d'oeuvres.

WESTIN HOTEL / 8:00 p.m. to 10:00 p.m.

Special Anniversary Classes

Among the special reunion classes this year are those of 1925,

1930 (Diamond), 1935,

1940 (Gold), 1945,

1950, 1955, 1960,

1965 (Silver), 1970,

1975, 1980.

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